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AGRICULTURAL EXTENSION IN EU COUNTRIES

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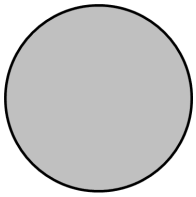

FOREWORD

This becomes the one of the first publications at the university level dealing with agricultural extension in the selected EU countries focused on the agri-food production and rural development. It is arguing for conceptual grounding of the agricultural extension, as well as for challenging issues of rural development. The publication is the result of Erasmus Intensive Programme: "Agricultural Extension in EU Countries" (code 12203-0902/Nitra).

The backbone of agricultural extension is the transfer of agricultural information in order to enhance proactive capacity of the food producers. The adaption of new technologies and production approaches in farming to produce high quality food and provide reliable services is becoming crucial for all countries. Nowadays, it is also important that agricultural extension will be oriented towards of strengthened vertical and horizontal integrating links alongside the commodity production chains. Furthermore from agricultural extension is expected that it will become more market oriented, in order to help to food producers to achieve higher marketability for their products. These challenges are subsequently placing greater responsibilities on agricultural extension. Food sector is becoming a vital conduit to farmers of the agricultural information and technologies required by the new continually evolving technology-based agricultural and food system.

Stemming from these requirements, particularly in the EU-12 countries, agricultural extension should be considered as the government priority. In addition to this, from the consultants in changing nowadays are expected the high requirements on the technical knowledge, skills and communication capacities.

In this publication we introduce the state and perspectives of agricultural extension in Hungary, Poland, Netherlands and in Slovakia focusing our attention on the food production and rural development. I am pleased to have this chance to acknowledge professionalism of the authors of these parts, especially to Jozef Kania and, Kristina Vinohradnik from Poland, Taco Medema from Netherlands, Krisztian Kiss from Hungary and to Zuzana Kapsdorferová from Slovakia.

Furthermore, in this publication, Olga Civzele and Andis Kursitis from Latvian State University in Jelgava are dealing with European Union funding for agricultural and rural areas' entrepreneurship in Latvia. Natalia Martin Cruz and Cesar Gamez Alcalde are analysing the entrepreneurial activities of rural women on the example of Castilla Y Leon in Spain. In the time of global economic and food crisis is meaningful to know the development of the trade with agri-food commodities. In this relation Aneta Jarosz-Angowská is introducing the analysis of international trade with agricultural products.

Alongside of agricultural extension, the important role is played by the theoretical background of rural sociology and good knowledge of enterprise' macro-environment. Silvie Gurská and Naďa Hanusová as well as Eva Abrazskinová are sharing their knowledge and experience from Czech Republic. With pleasure, I ackowledge the highly qualified professional inputs of the all above mentioned authors.

We all are great believers that well-functioning agricultural extension system and prepared consultants can in positive way influence the economic and social development of agricultural and food sector, as well as the development in rural areas.

Mária Kadlečíková

1 THE STATE AND PERSPECTIVES OF AGRICULTURAL EXTENSION IN THE SLOVAK REPUBLIC

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1.1 FOREWORD

Agricultural extension has undergone several development phases, both in the world and in the Slovak Republic. Since the 19th century, it has played a significant role in resolving various development challenges in the agricultural sector, particularly with regard to the prevention of food shortages. In the second half of the 20th century, its importance increased in relation to the Green Revolution, which substantially supported increased crop yields. The Green Revolution had a positive impact on mitigation of hunger worldwide, and in the specific case of Slovakia led to achievement of food security at a level of almost 90 percent. As a consequence, in the years following the Green Revolution, the world experienced an improved food security situation. Member countries of the European Union, and many non-member countries, noted an over-production of agricultural products, which was the result of implementation of the Common Agricultural Policy (CAP), respectively substantial support to agriculture, and creation of a well-developed agricultural extension system comprehensively supported by the state. However, from 1995 a rapid increase was noted in the number of undernourished people in the world. In Slovakia, as a consequence of the transition process, food production declined approximately 30 percent. Therefore, at the World Food Summit organized in 1996, agricultural extension was listed among four key factors integral to the resolution of the hunger issue (research, education, extension and investment in agriculture and rural infrastructure).

The backbone of all agricultural endeavours is the transfer of agricultural information to enhance the productive capacity of farmers. The adoption of new technologies and production approaches in farming activities is becoming crucial for countries in order to meet the challenges of rapidly expanding populations and the decreasing availability of productive agricultural land. This challenge is subsequently placing greater responsibilities on agricultural extension.

This part of the submitted publication deals with the development of the Slovak agricultural extension system after 1990. Furthermore, it analyses the changing priorities of agricultural extension, evaluates the factors which had a positive impact on achieved successes, deals with selected managerial approaches, and outlines their strengths and weaknesses in connection with the results achieved in agriculture and rural development. Other issues are the development of agricultural extension following EU accession, and production and economic development in the agribusiness sector in the period of market-oriented agricultural production.

1.2 FOUNDATION AND MISSION OF AGRICULTURAL EXTENSION IN THE SLOVAK REPUBLIC

Traditionally, agricultural extension has referred to the work of a professional body of agricultural experts, often government employees, teaching improved methods of farming, demonstrating innovations, and helping farmers to organize and solve their problems. Agricultural extension has already served as a link between farmers to transfer the "best practices" of one farmer/cooperative to another, and as a channel to encompass a wide range of activities (in public, private, non-profit, and non-governmental sectors), but the exchange of information continues to be the primary focus of extension activities (Moris 1991, Hayward 1989, Lafourcade 1988).

It is expected that by the year 2050 the world population will have reached approximately 9.2 billion people. This is the principal motive behind experts attempting to find an answer to the fundamental question of "How to feed the world in 2050?" In the Declaration of the FAO World Food Summit, organized in 2009, on the topic of food security, it is stated that the most meaningful tools and determinants in the solution of this worldwide challenge are investments in the agribusiness sector, to education, research and extension services. It is expected that the agricultural extension sector should accomplish diverse tasks according to specific regions, sub-regions or countries. The importance of agricultural extension for new EU countries stems out of the commitment to meet the requirements of Cross-compliance and to ensure a high absorption capacity of the use of EU funds. But at the same time, the agricultural sector, food sector and rural development are facing a number of challenges deriving from the multiple economic interventions (transition, preparation for EU accession and accession itself). In addition, these sectors have been seriously affected by the world financial and economic crisis, increased energy prices, the negative impact of climate change, the volatile development of food prices, and by a reduced capability to compete with the EU-15, but also with some new EU Member States. In dealing with all these issues, a significant role can be played by the agricultural extension system. However it is important to highlight that in order to fulfil this role satisfactorily, the agricultural extension system must be well established from a human and institutional capacity point of view. Furthermore, for agricultural extension systems to operative effectively they must be responsive to the current needs of farmers and of those working and living in the countryside. If it is envisaged that agricultural extension should have innovative dimensions to its services and effectiveness, then it is clear that governments will be compelled to pay greater attention to such services and take into consideration the decisive impact of agricultural extension on more effectively dealing with today's needs and challenges.

Apart from this, the whole system also needs to be acknowledged by farmers and all stakeholders involved in food production and rural development. The inadequate recognition given to the current agricultural extension system has resulted from the fact that there is a significant difference between EU-15 countries and Slovakia. In the EU-15 it was characteristic to see a natural development of agricultural extension in a state form, which after five decades of an effectively functioning system was smoothly transformed to a private basis. Instead the situation in the former transition countries was radically different. In Slovakia, for example, following the political and economic changes, agricultural extension based on public ownership was introduced. It should be highlighted that the organizational design and functioning of this system have been fragile and vulnerable. Regardless of this, following EU accession the Western private model was introduced in Slovakia. Nowadays it is expected that Slovak farmers will pay almost in full for the services provided, despite the fact that they have had little opportunity to adapt themselves to this kind of treatment. Therefore it should be underlined that, in the current climate of economic development of worldwide and domestic agriculture, agribusinessmen are not prepared to participate in a cost-recovery system with payment of additional fees for services, which have no tangible nature, unless they are obligatory. Moreover, it should also be stressed that it is mainly the older generation of farmers who are not paying great attention to agricultural extension, probably because in the former political and economic system, these kinds of services were offered free of charge, so it is not so simple for them to evaluate the real value of extension services. Apart from this, alongside the low level of attention paid to agricultural extension and institutional capacity-building, there is also an absence of professional enthusiasm for establishment of a well-functioning extension system.

It should be noted, however, that cost-recovery programmes should be viewed as a transitional phase as they are, at most, a second-best solution to resolving the undersupply of agricultural services resulting from fiscal constraints. An important contribution of cost-recovery programmes is the development of a market for agricultural extension services. Extension

demand is fostered as farmer attitudes adjust from traditionally receiving services for free to a fee-paying system.

1.3 THE OBJECTIVES OF AGRICULTURAL EXTENSION AND ITS INSTITUTIONAL DESIGN

The objectives of agricultural extension during the transition period have been in continuous flux according to the major priorities set by the Government. On the one hand, some of them are still valid up to the present time, while a substantial part has been changed and replaced by more actual objectives. This kind of development is analogical to this part of the world. Currently, among the priorities, the principal activities are focused on the vertical and horizontal integration of associations, market development, food processing with higher value added, sustainable management of natural resources, organic farming, rural and farm tourism, as well as on rural development. Taking into consideration overall economic development and particularly the recent problems in the agribusiness sector and in rural development, agricultural extension objectives can be considered as moving targets, since they are changing in both time and space dimensions. The objectives of agricultural extension during the transition from a centrally planned system to a market-oriented economy have been, or are as follows:

- Support for the transition of the agricultural and food sector to a market-oriented economy
- Transfer of modern technologies into practice
- Development of modern management approaches and marketing
- Assurance of food security
- Enhancement of input quality into agricultural production
- Support for rural development
- Support to the development of human resources
- The provision of high quality and accessible information to agribusinessmen about new development trends in agriculture
- The preparation of the agrifood sector for EU accession
- Assurance of sustainable management of the natural resources
- The preparation of projects for utilization of pre-accession and post-accession funds (Special Accession Programme for Agriculture and Rural Development (SAPARD), PHARE, Instrument for Structural Policies for Pre-Accession (ISPA), etc.)
- To secure the development of activities linked to the field of public goods
- Preparation of market strategies for individual firms

1.4 THE DEVELOPMENT OF EXTENSION IN THE SLOVAK REPUBLIC

1.4.1 DEVELOPMENT OF EXTENSION SERVICES UP TO 1990

Up to 1990, extension services in former Czechoslovakia were developed under the supervision of the Ministry of Agriculture. The main role in this regard was played by the so-called Institute for Systems Management in Agriculture. In addition, a significant function was undertaken by sectorial research institutions and universities, which collaborated first of all with departments for science and development, usually located next to large-scale production and economic units, e.g. Agrokomplex (agricultural production and presentation), Slovosivo (seed production company), or Velkovykrmne Palarikovo (meat and crop production). Other institutes closely involved with extension were the Slovak University of Agriculture, Nitra; the University of Veterinary Sciences, Kosice; the Slovak Technical University, Zvolen; the Economic

University, Bratislava, and others. The term extension was understood at that time as: "the transfer of knowledge into practice". The positive feature of this period was the comprehensive cooperation between science and education on the one hand, and large-scale agricultural enterprises on the other.

1.5 DEVELOPMENT OF AGRICULTURAL EXTENSION IN THE COURSE OF THE TRANSITION OF AGRICULTURE

In 1990, the Livestock Production Research Institute in Nitra was established. This was the first agency dealing with agricultural extension: AGROSERVIS, which was actually the central leading agency for extension provided by all research institutions acting in the field of agriculture. During the same period a new subject, "Enterprises Consultancy", was introduced at the Slovak University of Agriculture, Nitra, and agricultural extension was also included within the framework of this new discipline. In 1991, British ADAS, in cooperation with the British KnowHow Fund, organized a two-year intensive course on agricultural extension in former Czechoslovakia. As an outcome of this initiative, in 1993 twelve Slovak experts obtained graduation certificates from the intensive course focused on agricultural extension. Actually ADAS and the graduates from the course laid down the first basis for agricultural extension in the Slovak Republic.

From an institutional viewpoint, in order to achieve the next development stage regarding agricultural extension, the EU PHARE Development of Extension Services to Improve Primary Agricultural Production (DESIPAP) project was important. This project initiated institutional capacity-building of the agricultural extension services in collaboration with the Government. The philosophy and architecture of the Slovak advisory system stemmed from the experiences of EU countries, particularly of Great Britain, the Netherlands and Austria. In 1998, the state extension system was established. Its institutional coverage is introduced in Table 1.1. Within this system, 22 extension service centres have been created. Out of these, ten centres were placed next to research institutions, 10 next to regional seats of the Slovak Food and Agricultural Chamber and two were placed in private companies. From the very beginning, the Agroinstitut (a state institution responsible for lifelong education in the food and agricultural sector) was responsible for the education and certification of advisors. Despite this positive initiative developed by the Government and the EU, the activities of the above-mentioned centres have never been fully developed. Due to financial problems and overall supply constraints, these centres were continuously compelled to interrupt their activities. It is important to note here that the extension activities undertaken during this period are now positively evaluated. This refers to the preparation of Slovak farmers on EU accession, to the successful utilization of SAPARD funds, to the transition from a centrally planned to a market-oriented economy, and to the development of the rural economy and organic farming. However, up to the time of accession to the EU, this system was never developed in real terms.

Table 1.1: Institutional Capacity-Building of the State Agricultural Extension System

INSTITUTION	FUNCTION
Ministry for Agriculture	Coordination.
Slovak Agricultural and Food Chamber (SAFC – SPPK)	Participation in the implementation of agricultural extension
Agroinstitut, Nitra	Centre for Lifelong Education
UVTIP Nitra	Provided information and operate the internet portal: AGROCONSULTING
Regional Consulting Centres	The organization of seminars, workshops, field days, field trips, excursions, exhibitions, agricultural machinery days, databases and consultants.

Source: [10]

In the pre-accession period, extension played an important role in the transition of agricultural cooperatives and state farms, in the quality enhancement of agricultural products and utilization of pre-accession funds (e.g. SAPARD programme). Furthermore, comprehensive support was provided to the preparation of human resources for the new EU challenging environment. Nevertheless, it should be underlined that the expectations of farmers and other stakeholders with regard to extension were great, however due to the non-completed architecture, lack of financial resources and absence of a single coordinating unit, the agricultural extension sector was not in a position to deal with all the challenging tasks, despite the fact that these undertakings were important for the establishment of a modern, competitive market economy in the agricultural sector.

1.5.1 DEVELOPMENT OF THE EXTENSION SERVICE FOLLOWING EU ACCESSION

Extension has become more important following the accession of the Slovak Republic to the European Union. This is connected to the requirement to meet the conditions for Cross-Compliance. According to Council (EU) regulation number 1782/2003, the agricultural extension system must be focused on the minimum requirements defined in the legal norms of production (Statutory Management Requirements – SMRs) regarding the maintenance of land in good agricultural and ecological condition. Since this is linked to the direct payments system, this fact led to the new, however still not completed, architecture of the advisory system in 2007. It is characteristic that so far no single institute exists to deal with the structure and organizational management of agricultural extension. Such an institute would be in a position to ensure the revival of the agricultural extension system, its modernization and its comprehensive institutional reconstruction in an effective way, with the aim that such a system would then fulfil all the functions which are expected from modern extension in the field of transmission of new knowledge and technologies into agricultural practices and to rural areas.

With the intention of establishing a unified agricultural advisory system which would be in line with EU standards, a new system was introduced in 2007. The following institutions and organs are involved in the system:

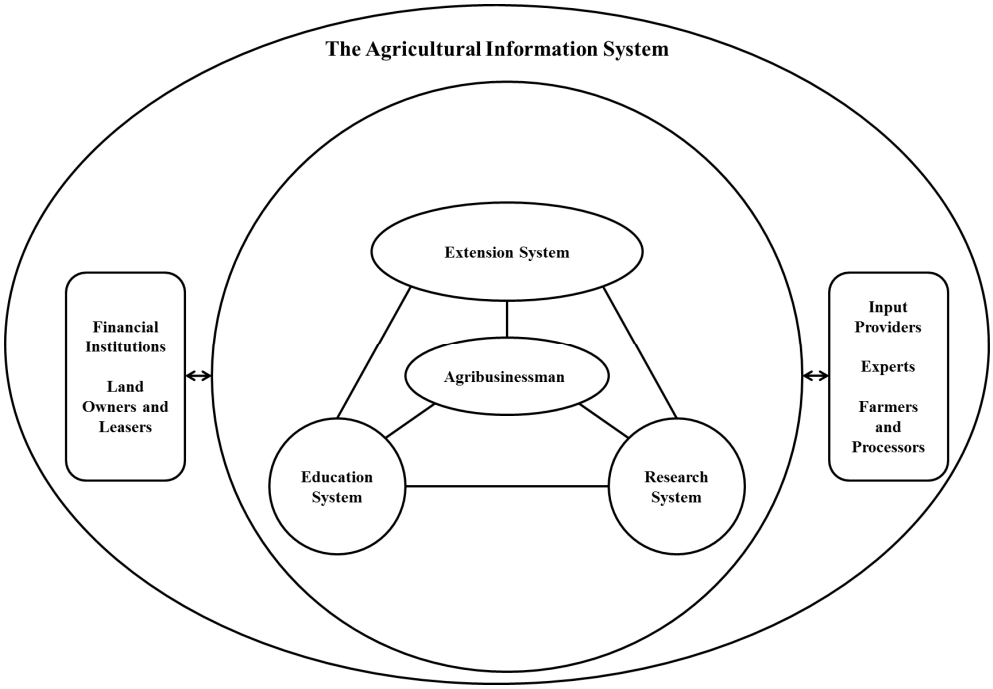
- The EU administration with respective organs
- The National Council of the Slovak Republic
- The Government of the Slovak Republic
- Ministry of Agriculture and Rural Development with:
- The Council for Agricultural Extension

- The Department of Science and Research of the Ministry of Agriculture and Rural Development
- The Agricultural Paying Agency (APA)
- The Agroinstitut Nitra – Lifelong Learning and accreditation of the advisors
- Regional Info-terminals
- The National Forestry Centre (The Institute of Forestry Extension and Lifelong Learning, Zvolen)
- Other sector institutions (research institutions)
- Accredited extension experts, acting individually or in extension agencies

1.6 The Recent Challenges of Extension in Relation to the Latest Status in Agriculture and Rural Development

In many states, including the Slovak Republic, the decline in agricultural production was initially generated by an absence of inter-relations between farmers and other stakeholders, and by an ineffective system of selling agricultural technologies, including poorly prepared information packages, non-corresponding communication systems and insufficiently elaborated methodological procedures.

Figure 1.1 The Agricultural Information System



Source: adjusted according of Birner et al. (2006)

In the Agricultural Knowledge and Information System (AKIS), people and institutions are inter-linked in order to generate new knowledge, share experiences and transfer them among themselves with the aim of introducing them into agricultural and rural practice. This kind of system only functions well in a situation where farmers, teachers from universities and secondary schools, support services and vendors/mediators are well integrated, with the objective

of obtaining new knowledge and information from different sources about more sustainable land management, sustainable use of natural resources, and for improving the living conditions of farmers and the rural population.

Despite this, the integration of people and institutions in relation to research and extension, as well as links among the farmers' community, were not successfully developed in transition countries. Regrettably it should be highlighted that this unfavourable situation was transmitted, together with these countries, into the EU, so no significant changes materialized with regard to the effectiveness of the agricultural extension system. In the new EU states, the extension services are under-supported or not operating at a satisfactory level (except in Hungary and Poland) in relation to their financial resources, space and mobility, and lack the capacity to orient themselves, in a flexible way, to the new challenges and be quick enough to obtain the most up-to-date information in a timely manner.

1.7 THE HUMAN AND INSTITUTIONAL CAPACITIES OF THE SLOVAK AGRICULTURAL EXTENSION SYSTEM

One of the most important prerequisites of a well-functioning agricultural extension system is that advisors are good professionals; they are competent in communicating with their clients and have a positive approach towards them. These two pre-conditions are essential requirements for the establishment of a market-oriented extension system. The concept of extension stemming from demand is based on tasks, direction of the service and quality of communication. Applied research requires impetus from farmers and other stakeholders in order to know which fields should be explored. On the other hand, for extension it is important to know what kind of information and knowledge are needed for its clients. Alongside this, both consultants and researchers should know that they should use clear and understandable communication language. The acceptance of the advice provided by the consultant depends, to a great extent, on his/her communication skills. Furthermore, extension services have to take into consideration the fact that different groups of clients would require diverse types of information and agricultural and food technologies.

The extension agencies present in Slovakia are usually providing advice and consultancy in the following fields:

- Financial, taxation and accounting consultancy
- Development of human resources
- Organic farming
- Education, training, skills courses in agriculture, food processing and rural development
- Rural development
- Development of farm and rural tourism
- Crop nutrition
- Livestock nutrition
- Inputs and outputs quality standards
- Horticultural production
- Fruit production
- Animal breeding and livestock registry
- Information technology
- The development of agribusiness activities
- EU project design
- Quality standards and finalization of products
- Formulation of marketing strategies

The experience of the agribusiness sector confirmed that human resources development is essential for a sufficient production of healthy foodstuffs, as well as for integration of the

agrarian market. Achievement of sustainable agriculture depends as much on material inputs (seeds, fertilizers, new technologies), as on the people who are involved in their exploitation. This principle, which highlights the meaningfulness of human resources, requires a more intensive transmission of information into agri-food production, as well as enhancement of new trends in the sector to provide new opportunities for exploitation of effective communication channels, methods and tools.

New agricultural technologies are the result of the creative activities and inventions of workers at research institutes and universities, as well as the outcomes of farmers and other stakeholders acting in the countryside. It is expected that agricultural extension services will strive for and, in some cases, even force the introduction of new technologies by their clients. The role of research institutions and extension agencies is to provide professional, specific and unbiased extension services, managerial information and advice, and also direct reactions to the needs of their clients. As a consequence of the less developed links between research and extension services, on the one hand, and among agribusinessmen on the other, the introduction of new technologies by farmers and other stakeholders is slow, and this is the reason for the misunderstanding that research is not always focused on the needs of the primary producers.

From the beginning of the 1990s, professionals have shown considerable interest in being active in agricultural extension. This was linked to the expectation that the Government would support this activity in a meaningful way, and that extension would belong among state priorities following EU accession. Moreover, extension was seen as the profession where capable experts could initiate business in the various disciplines of the agricultural sector. During this period, such experts were employed in universities, research institutions, or worked for the state administration. In 2000, 300 experts and 100 extension agencies, of a private nature, were registered in the database of advisors with an agricultural background. Surprisingly, with the accession of Slovakia to the EU, the number of advisors declined, as a consequence of the requirements stemming out of Cross Compliance linked to extension services. The certification of advisors became, in substance, a more demanding process. In 2011, 131 advisors were registered, of these 77 are qualified as generalists and 54 are listed as specialists. In this respect, there is an essential distinction between Slovakia and other EU countries. Furthermore, out of 75 non-certified advisors, 30 are generalists and 45 specialists. This situation is obviously irrelevant to the requirement to ensure a more effective and high quality agricultural and food processing sector. Moreover, it is not ensuring a sufficient absorption capacity for utilization of EU funds which are assigned for agricultural extension, rural development and for other fields.

One comprehends an **Advisor-Generalist** as an expert who works with information and knowledge of a complex nature from various fields and this data and experience is subsequently transferred through his/her work into practice. Such an expert has a wide professional background. On the other hand, an **Advisor-Specialist** is focused on working with information and knowledge from specific fields with the objective of introducing this expertise into practice. The professional background of such a person is narrower, despite the fact that he/she can be an excellent professional in the one specialized area. In extension practice, in addition to these two basic terms linked to professional terminology, the term **Advisor-Manager** is also widely recognized**.** The tasks of such a professional is to manage and coordinate the work of advisors, ensure resources for extension programmes, and keep active contacts with the state administration, partners or with potential clients. Such contacts are important for the achievement of new contracts and in order to be involved in development programmes. In the practical operation of the extension agencies, another term related to human resources is **Advisor-Administrator.** The role of this position is to undertake managerial and conceptual activities, also other work connected to the administration of projects in an extension agency, or in an extension unit. Such a position is considered to be a senior post. In addition to the tasks mentioned above, the Advisor-Administrator deals with agricultural strategies and concepts and

their transmission to the farming profession. An **Advisor-Consultant** is an employee who is providing extension services directly in the field.

In this regard, it should be pointed out that the Slovak Republic is significantly understaffed with regard to the numbers of advisors. A single advisor is covering 9,370.38 hectares of agricultural land and 44 entrepreneurial units. A budget of EUR 8.57 million has been earmarked for the strengthening of agricultural extension, but so far only EUR 673.93 have been used. Another problem affecting extension services in the Slovak Republic is the high average age of advisors. 56,49 advisors are older than 51 years. This fact is a further confirmation that insufficient attention is being paid to agricultural extension, moreover that there are evidently missing functional links with regard to the coordination of the state administration, clients and extension services.

1.8 THE EDUCATION SYSTEM AND ACCREDITATION OF ADVISORS

The education system related to the advisory services, comprises mandatory education connected to support for the elaborated project, oriented towards the selected field which represents the organic part of the accreditation process, and then a supplementary education programme of a periodic nature. The second part of the accreditation process is composed of general and technical elements. The education model continues with a course focused on personal communication. The outputs of the advisor's work are evaluated on a reference basis related to quality of the provided services, prepared and implemented EU projects, and according to other criteria. In total, 27 educational models for advisors have been accredited by the Ministry of Education, Science and Sport. Among the accredited programmes, there are the following examples of modules: thematic focus: 101 Environment, 102 Public Health, Crop and Animal Health, 200 Economics, 300 Management and Marketing, 400 Livestock Production, and 600 Crop Production.

Info terminals also play a technical role in the **Central Agricultural Advisory System.** The mission of the Central Agricultural Extension System is to ensure a qualified and high standard of agricultural extension in Slovakia. Info terminals are working places equipped with computers, which are situated in all regions and some districts of the country. They are accessible to potential users. The info terminals are also furnished with so-called info desks, equipped with printed materials (leaflets, guidebooks, legislation, information sheets, etc.).

1.9 STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS OF SLOVAK AGRICULTURAL EXTENSION

As a result of the SWOT analysis, the most relevant strengths, weaknesses, opportunities and threats of the agricultural extension service in the Slovak Republic have been analysed. The results are as follows:

Table 1.2 Strengths, Weaknesses, Opportunities and Threats of Slovak Agricultural Extension

STRENGTHS	WEAKNESSES
▪ Sufficient number of highly qualified professionals ▪ Relatively simple and accessible system of accreditation and education of advisors ▪ Logical links between participating institutions ▪ Presence of well-functioning educational centers and a relatively functioning system for providing information on WebPages of the involved institutions as well as on the WebPages of the Info Terminals	▪ Limited financial support for extension services, this is more based on commercial principles than on state support ▪ Insufficient utilization of the EU resources assigned for agricultural extension. Only 7.9 percent of the provided volume has been used. ▪ The absence of one state organization which will take overall responsibility for agricultural extension. Fulfillment of the extension mission and its tasks is spread over several organizations. ▪ Insufficient number of accredited advisors and their high average age
OPPORTUNITIES	**THREATS**
▪ Coordination of the whole process by one institution ▪ More effective use of EU funds ▪ Agricultural extension should be market-oriented in order to achieve higher marketability of agricultural products ▪ Upgrading of state subsidies for extension focused on maintenance of natural resources ▪ Introduction of modern educational methods for advisors and farmers ▪ Advisory activities must be focused on the building of vertical and horizontal integrating links with the intention to establish vendor/outlet cooperatives-associations.	▪ The significant decline of state financial support ▪ Farmers under the present multiple crisis conditions will have limited opportunities to finance extension services ▪ If extension, from a benefit viewpoint, is not attractive there is a serious threat that it will slowly minimize its impact on the agricultural and rural sector ▪ Continuation of the crop to meet production decline ▪ As a consequence of limited resources, less attention will be devoted to the continuing education of farmers and other stakeholders on the one hand and to advisors on the other.

Source: own results

1.10 INTERRELATIONS BETWEEN THE DEVELOPMENT TRENDS OF SLOVAK AGRICULTURE AND THE IMPLEMENTATION OF THE ADVISORY SYSTEM

The objective of this chapter is to analyse the environment and conditions in which the Slovak agricultural extension system developed in relation to the development of agriculture, the countryside and the food processing sector. In order to have a complete picture, it is worth mentioning that development of the sector over the last two decades has been significantly influenced by the transition process, preparation for EU accession, and by accession itself. During the same period, new advanced technologies were introduced in agriculture and in food processing. And hereby the architecture of the countryside is also changing. In this context, agriculture is playing an important role. Despite great expectations, not all the present trends had

positive effects on the development of the agrarian sector. The following analysis of the selected measurements confirms that transformation, and mainly the EU accession have found Slovak farmers and food processors only partially prepared with regard to the above-mentioned challenging changes

From 1994 up to 2000 all of Slovakian agriculture experienced negative economic results. Net profits were only achieved in 2005, the first year after EU accession. This trend continued up to 2008 but later as a result of the impact of the world financial and economic crisis and the extensive floods in 2010 total expenses rose higher than net profits From 1990, the share of agriculture, forestry and fisheries of gross domestic product (GDP) has continuously declined and in 2010 it was recorded to be only 2.69 percent (as a comparison, in 1990 this indicator was 6.60 percent).The same analogical trend was also noted for food processing, the share of which was 2.67 percent of the national GDP in 1995, while in 2010 it was only 2.00 percent.

Slovak agriculture has been characterized by a decline in agricultural land and arable land. A considerable decline in cereal production, and potato, vegetable and fruit production has been observed. In 2010, growth in the harvested area of sugar beet has been noted. Also, in comparison with other crops, there was a non-characteristic development in sunflower production which, contrary to neighbouring countries underwent a decline in production .Furthermore, what is causing great concern to decision-makers and the Slovak population is the significant drop in cattle, pig, poultry and sheep production.

Running parallel with these trends is the decline in the number of employees in the sector. The sector had 326,660 employees in 1990, but only 31,685 in 2010. This represents 1.51 percent of overall employment in Slovakia. It is obvious that this is causing serious social and economic problems. From a number of indicators characterizing the sector, only some of them had positive development trends. Among these can be cited the average wage in agriculture as well as in food production. The average wage in both sectors has been continuously increasing on a yearly basis and in 2010, the average wage in agriculture was EUR 592 and in food production EUR 698. However, it should be mentioned that agriculture for some time has been characterized by wage disparities in comparison to other sectors of the national economy (e.g. in 2009, with regard to wages, the share of agriculture in relation to the national economy average amounted only to 78.60 percent and in 2010 only to 77.08 percent) [17]. The share of the agricultural population was ranked as the second lowest of the Visegrad-4 states. However, it is worth mentioning that Slovakia is a rural country where 43.20 percent of the population lives in the countryside. This indicator is very stable; there has been practically no change from 1990.

The direct payments achieved on 1 hectare of agricultural land in comparison with the EU-27 was only 79.93 percent in 2009. This practically means EUR 239, ha-1. From the Visegrad-4 states, the best result was noted in the Czech Republic, and as far as all the new EU States were concerned, the best result was achieved by Malta (EUR 1,577 ha-1).

The development of the number of agricultural farms and processing factories is shown in Table 3.1. During the decade from 2000 to 2010, the number of farms decreased from 21,863 to 8,728.

Table 1.3 The Number of Farms in the Agrifood Sector from 2000 to 2010

Indicator / Year	2000	2005	2006	2007	2008	2009	2010
Number of companies in Agrifood Sector: total	***26383***	***15021***		***17298***	***18520***	***18573***	***18366***
• Farms	21863	8977	x	8934	9013	9069	8728
• In Agricultural Service	1322	1761	2769	3494	4180	4188	4417
• Food processes companies	3198	4283	4887	4870	5327	5316	5221

x – the value is unknown

Source: [12],[17], and own elaboration

According to the Slovak Statistical Office, the average size of Slovak farms was 28.1 ha of agricultural land in 2010. The average size of registered farms was 20.08 ha and not registered individual farmers cultivated farms with a size of 1.9 ha. The highest average size was recorded on state farms (1,560 ha) and on cooperative farms (1,268 ha). From registered farms, the lowest average size was noted in the case of individual farmers (45 ha).

Foreign trade in agricultural commodities attained a positive balance for the last time in 1991. In 2009, the import of agri-food commodities was higher than their export by about EUR 872 million. The first year after accession the import/export share was more balanced, however, the pressure from the EU-15 States and Poland was too high and Slovak farmers and traders were not prepared to successfully deal with it.

1.11 CONCLUSION

The objective of this part of the publication is to describe the establishment and foundation of agricultural extension in the Slovak Republic, and its development during the course of transition of the national economy, preparation for EU accession, as well as after accession itself. Due to financial limitations and uncompleted architecture, the extension services did not fully meet the expectations of agribusiness professionals. Following EU accession, the whole system was renovated in 2007 with the target of harmonizing it with the requirements of Cross Compliance. In the Slovak Republic there are a total of 131 accredited advisors, of whom 77 are recognized as generalists and 54 as specialists. On average, one advisor is servicing 9,370.38 ha of agricultural land and 44 agricultural farms. Among the most challenging issues facing agricultural extension are the following: the need for more professional dissemination of information to meet the demands of different kinds of EU programmes/projects; orientation of the sector towards a more dynamic, effective and competitive market with respect to agricultural commodities; successful management of the negative impacts of climate change and assurance of sustainable management of natural resources; enhancement of measures to tackle the effects of the economic and financial crisis and to promote improvement of the overall performance of agricultural extension. Currently, the agricultural extension service is not playing as active role as it should be in the EU environment. Moreover, it is not considered as a government priority, despite the fact that its role was substantially highlighted following accession of the Slovak Republic to the European Union, particularly in connection with utilization of EU financial resources. What is expected of agricultural extension is that it will become more market-oriented, which would help farmers to achieve a higher marketability for their products. Extension activities should be oriented towards strengthened vertical and horizontal integrating links alongside the commodity production chains. A very important task is the establishment of procurement/sales cooperatives or associations. If they play their role in an effective way, they can have a positive impact on the sector avoiding the negative impacts of the volatility of price surges and supporting sector stability. Government policies can greatly influence the costs and

returns of extension. Price, trade, fiscal and exchange rate policies influence commodity prices. Commodity prices, in turn, significantly influence the rates of return to research investments in different areas or commodities and subsequently the nature of information that is available for dissemination. Commodity prices, as they influence farm enterprise incomes, will also determine the affordability of buying extension services. The nature of the Government‘s technology and regulatory policy will similarly enhance or restrict access to the technologies which can be introduced by extension agencies.

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2 AGRICULTURAL EXTENSION IN POLAND

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2.1 INTRODUCTION

Agriculture is one of the branches of the national economy, which are the basis of life and the maintenance of the population. It produces about 90% of food products and raw materials for food processing. The appropriate level of agricultural development is one of the pillars of the development of the whole economy. Its condition and development depends on three groups of factors. The first of these are internal factors - land, labor, capital - which are the production base of each farm. The second group includes agricultural environmental factors, which include economic policy, including the wider agricultural policy, the level of economic development, the development of technical and social infrastructure in the country, the state and the development of education and science, including agricultural research and innovation. Finally, a third group of social and political factors that largely affect the attitudes and behavior of farmers and professional activity, expressed attitude to the farmers and the prospects for the development of this sector of the economy, and through the creation of opinion have also some influence on the perception of agriculture and farmers from other professional groups.

2.2 ESSENCE OF AGRICULTURAL EXTENSION

Extension in the organized form shows at a higher stage of development of the communities, when the practice is looking for advice, paying for advice, giving advice and the joint analysis of the problems and the search for optimal solutions. This co-participants in the consulting process is more effective, because it allows for solution the problem, and to achieve complete satisfaction both partners – farmer and advisor (which is the supreme value consulting). In addition, the joint solution of a specific problem makes applying for advice gaining knowledge and skills to solve other problems in the future (hence the advice of an educational nature). [1]

Consulting as a field of study is interdisciplinary, and thus contains elements and uses science research methods, which it co-create – the social sciences (education, sociology, psychology and praxeology) and the technical and economic sciences (agriculture, economics, organization and management). Therefore, a clear definition of agricultural advisory services is difficult because of the different interpretations and conceptual representatives of this branch of science. These elements include the classic definition of advice formulated by German sociologist Rheinwald, which defines agricultural consultancy as an aid to those employed on the farm, responsible for production, by convincing the rational action for the best organization and further development of the farm. Refer to the definition of van den Ban and Hawkins, who define counseling as a conscious transfer of the information to help people in shaping their correct opinion and take appropriate decisions. The most general definition, given economic and agricultural Encyclopedia [1984], where the agricultural advisory service is defined as a professional assistance to farmers in the implementation of modern, more efficient methods of farming.

[1] Kujawinski W., 1997. Doradztwo rolnicze w zarysie. CDiEwR, Brwinów.

Table 2.1 Chosen definitions of agricultural extension created by Polish scientists

W. Bronikowski [1938]
Agricultural advisory – it is *the impact on the mind and will of the host to learn about farm problems, realize the need and opportunity to improve and strive to develop it.*
M. Jerzak [1970]
Agricultural advisory – it is *a set of methods and activities designed to actively impact on agricultural practices in order to increase the productivity and profitability of agriculture through the implementation progress and dissemination of modern methods of farming.*
C. Maziarz [1984]
Agricultural advisory – it is *a scientific discipline, which together with extracurricular education creates agricultural andragology. Thus, agricultural advisory is an assistance of professional extensionists to farmers in matters relating to professional farm management, and information and guidance about natural, technical and economic aspects of production, as well as persuading and inducing the reasonable steps to continuously improve the organization of farms and production technology.*
B. Wawrzyniak [1987]
Agricultural advisory – it is *a specific way of work an extensionist with the producers, based on the set of deliberately chosen means of interaction, with a view to shaping the attitude of the farmer in accordance with modern requirements of agricultural progress.*
Z. Przychodzen [1991]
Agricultural advisory – it is *a scientific discipline that studies the function of professional agricultural consultants; typology of farmers as partners in the process of advisors to solve problems and make decisions, analysis of objectives, content, methods, measures and principles, the basic components of the counseling process, which resulted in changes in the personality of the farmer, his family, farm and surroundings.*
A.P. Wiatrak [1996]
Agricultural advisory – it is *the conscious and organized advisory help in the prevention, awareness and problem solving, provided to the agricultural population being or likely to be found in a specific problem situation; the task of consulting is to help the agricultural population to improve quality of life.*
W. Kujawinski [1997]
Agricultural advisory – it is *a specific type of agricultural education involving auto-motivation and an intentional partner interaction of farmer (or member of his family) with advisor, aiming to solve the problems of the farmer - located or may be found in a specific problem situation - and allows: to prepare farmers to take effective measures to prevent failure on his own farm and / or his family life, focus and prepared the farmer to self identifying and self-solving their agricultural and / or life problems.*

Source: Vinohradnik K., 2001.

Among the many definitions of advisory, formulated by Polish scientists and researchers over the past century, we will present a selection of definitions and views (table 2.1). Consulting (extension, advisory) is understood by the listed authors as a distinct scientific discipline, as a component of other scientific disciplines, as part of continuing education, as a source of information, as a motivating factor to act, as an aid in the implementation of innovation, as the principle of cooperation with a farmer (and participatory partnership relationship between farmer and farm advisor and freedom in making decisions and taking responsibility for the consequences), and finally as a tool for achieving the goals and direction of agricultural policy.[2]

[2] Vinohradnik K., 2001. Tendencje rozwojowe doradztwa rolniczego, SGGW Warszawa, ss. 5-8.

2.3 HISTORY OF EXTENSION IN POLAND

Agricultural advisory, regardless of the historical periods, always served the development of agriculture and improve the practical skills of the farmer. Its functions, goals, objectives and courses of action depended on the changing social, economic and political. As these conditions change and progress in the development of agriculture, and therefore the changing needs of farmers, changed and modified systems, organizational functions and tasks of counseling.

Farm advisory services, regardless of the historical periods, always served the development of agriculture and improve the practical skills of the farmer. Its functions, goals, objectives and courses of action depended on the changing social, economic and political. As these conditions change and progress in the development of Agriculture, and therefore the changing needs of farmers, changed and modified systems, organizational functions and tasks of counseling.

Agricultural extension in Poland has a long tradition. It is estimated that agricultural advisory institutions in Poland developed in parallel with the agricultural education. The first paid advisor was employed in 1883. His duty was delivery 100 to 150 lectures annually and visited on average 80 agricultural farms. In 1908, five agricultural instructors were employed in agricultural companies. In 1914, there were already 50 of them, and in 1918-1919 the number grew to 200. In 1911, an animal breeding specialist was employed. An instructor for the issues of rural women was hired as early as 1918. After Poland gained its independence in 1918, 'social agronomy' was the cradle of agricultural extension. It was defined as "social activity based either on private initiative or on associations and institutions or local government and the state" and it focused on the dissemination of agronomic knowledge and its application by the broadest strata of the population.[3]

In the inter-war period from 1918 to 1939, the agricultural chambers that provided extension services played a special role among the agricultural organisations, including especially the cooperative ones. The first three agricultural chambers (Pomerania, Greater Poland, and Silesia) functioned in independent Poland back in 1918-1920. A decree from 1928 ensured the right to organise agricultural chambers in other provinces, and this was fully implemented in 1934.

After World War II, in 1947, agricultural chambers were liquidated by the government and the local extension services were incorporated in 1950 into 'Peasant Self-help Unions'. By the end of 1967, these unions included more than 5000 agronomists, who worked at the county or district level, the smallest administrative unit in Poland.

The Regional Agricultural Research Centres (RRZD, Rolniczy Rejonowy Zaklad Doswiadczalny) were established in 1970. Its purpose was to develop and introduce modern methods of agricultural production to practitioners within its region. For implementation of these goals specialised extension service was established within the Regional Agricultural Research Centres.

In 1975, the Regional Agricultural Research Centres were transformed into Provincial Centres of Agricultural Progress (WOPR, Wojewodzki Osrodek Postepu Rolniczego). These were responsible for professional development and were substantially involved in providing agricultural services, as testified by the fact that in 1976 more than 17,000 persons worked for WOPR.

However, in 1990, the district level agricultural service was dismantled. Soon thereafter, 49 Agricultural Advisory Offices (ODR, Osrodek Doradztwa Rolniczego) were established, one for each province. These were public organisational units that reported to the provincial

[3] Wawrzyniak B., 1991. Doradztwo rolnicze, part I. Rozwoj sluzby doradczej w Polsce. WTN, Włocławek

governors and financed entirely from the state budget. The state agricultural farms were excluded from being served by these ODRs. The farms were a part of the provincial centres of agricultural progress. The first years of extension service reform in a new political and free market economic system are synonymous with broad support of many countries, especially of the USA, Denmark and Ireland.

It should be clearly emphasized that Poland was one of a few countries of the former Eastern Block with a relatively well developed extension system and structures in place to disseminate agricultural progress. Poland's agriculture sector also was somewhat different from those of other Eastern Block countries because actually near 80% of arable land was privately owned. In fact, there were more than 2 million private agricultural farms. Today, the average size of these private farms is 10.20 ha, and thus relatively small compared to other countries. Nonetheless, agriculture in Poland employs 12.1% of the man-power, but contributes only 3.9% to the GDP (2011) reflecting the still relatively low productivity of the agricultural sector.

Changes in the organisational form of the state agricultural extension service were accompanied by reorientation in programming. Since 1991, extension programs devoted to the issues of agricultural economics, agricultural marketing and information have become the priority. In the following years, the implementation of programs devoted to social welfare advisory services, the development of enterpreneurship in agriculture, leading communities, and local community development, multifunctional development of the rural areas and agriculture, alternative sources of income and environmental methods of management in agriculture were put into practice.

With regard to economic advisory services, rapid changes in the orientation of the programs were achieved as a result of two types of pressure:

- firstly, when the sales of their products were hindered, farmers began to pay more attention to increasing income by means of cost reduction and undertaking alternative projects,
- secondly, financial institutions began to require from the farmers applying for credit that they present reliable business plans of the designed projects.

Since the ODRs were established, farmers' demands on economic advisory services have rapidly grown. As a result, as early as in 1991, ODRs started a large-scale training of advisors in this field. The Polish and American Program for Agricultural Extension was of great service in this matter. The project was established as a joint educational project of the United States Department of Agriculture's Extension Service and the Polish Ministry of Agriculture and Food Economy's Agricultural Advisory Service. In period of 1990-1995, more than 100 American extension professionals representing 31 land grand universities travelled to Poland to work in this project. Over the period of the project, 70 extension professionals representing 26 states served one or more six month assignments as advisors at provincial level of Centres of Agricultural Advisory (ODR) in Poland.[4,5,6]

Within the framework of this program, trainings and workshops were organised both in the USA and in the EU to train advisors in preparing business plans by applying modern techniques. As a consequence, in years 1992-1998, ODRs were virtually the only institutions that

[4] Ragland J., 1995. Doradztwo rolnicze w Europie Srodkowej i Wschodniej ze szczegolnym uwzględnieniem Polski. [W:] Doradztwo rolnicze w Europie Srodkowej i Wschodniej. Red. Ch. H. Rust, D. Kierbiedz, B. Wegrzynowicz, MRiGZ, Polsko-Amerykanski Program Doradztwa Rolniczego, Rynia k. Warszawy, Polska, 21-41

[5] Place N.T., Evans D.E., Andrews M.P., Crago N.E. 2000. Implications and Impact among American Extension Professionals and Near-Associates Resulting from the Polish-American Extension Project. Journal of International Agricultural and Extension Education. Vol. 7 (1) Spring

[6] Drygas M., 2001. Rola programow pomocowych w procesach dostosowawczych doradztwa rolniczego w Polsce do wyzwan gospodarki rynkowej i członkostwa w UE [W:] Kierunki rozwoju doradztwa rolniczego w Polsce na tle tendencji Swiatowych. Red nauk. M. Drygas, J. Kania I A. Wiatrak, PAW, IRWiR, Warszawa 2001, 46-58

could help farmers on a large scale with the preparation of business plans. Even banks didn't have this capability at that time.

Nowadays farmers can make use of many other sources of knowledge. Information and advice can also be obtained from chambers of agriculture, which were re-established in 1996, private consultants, firms trading in agricultural inputs, or purchasing farm products, branch unions, agencies, associations and foundations dealing with specific subjects, banks, agricultural high schools, research institutes and universities. Last but not least the Internet gives access to practically all information that is being made available anywhere in the world.

After the new administrative division of Polish territory introduced in Poland in 1999, organisational changes took place in agricultural extension as well. The number of provinces was reduced from 49 to 16. An Agricultural Extension Centre was established in every province, with extension units in every county. By 2004, both CDR and ODRs were subordinated the Ministry of Agriculture. With effect from January 1st, 2005, ODRs obtained legal status, possibility of charging for some services and have been subordinated governors who are representatives of the government. State advisory system was transformed into a semi-state system. With effect from August 1st 2009 ODRs were subordinated to the Provincial Assemblies and together with this reform, the agricultural advisory system in Poland has become a semi-autonomous system.

2.4 ORGANISATIONAL SYSTEM OF AGRICULTURAL EXTENSION IN POLAND

2.4.1 RIGHTS FOR ACTIVITY OF AGRICULTURAL ADVISORY

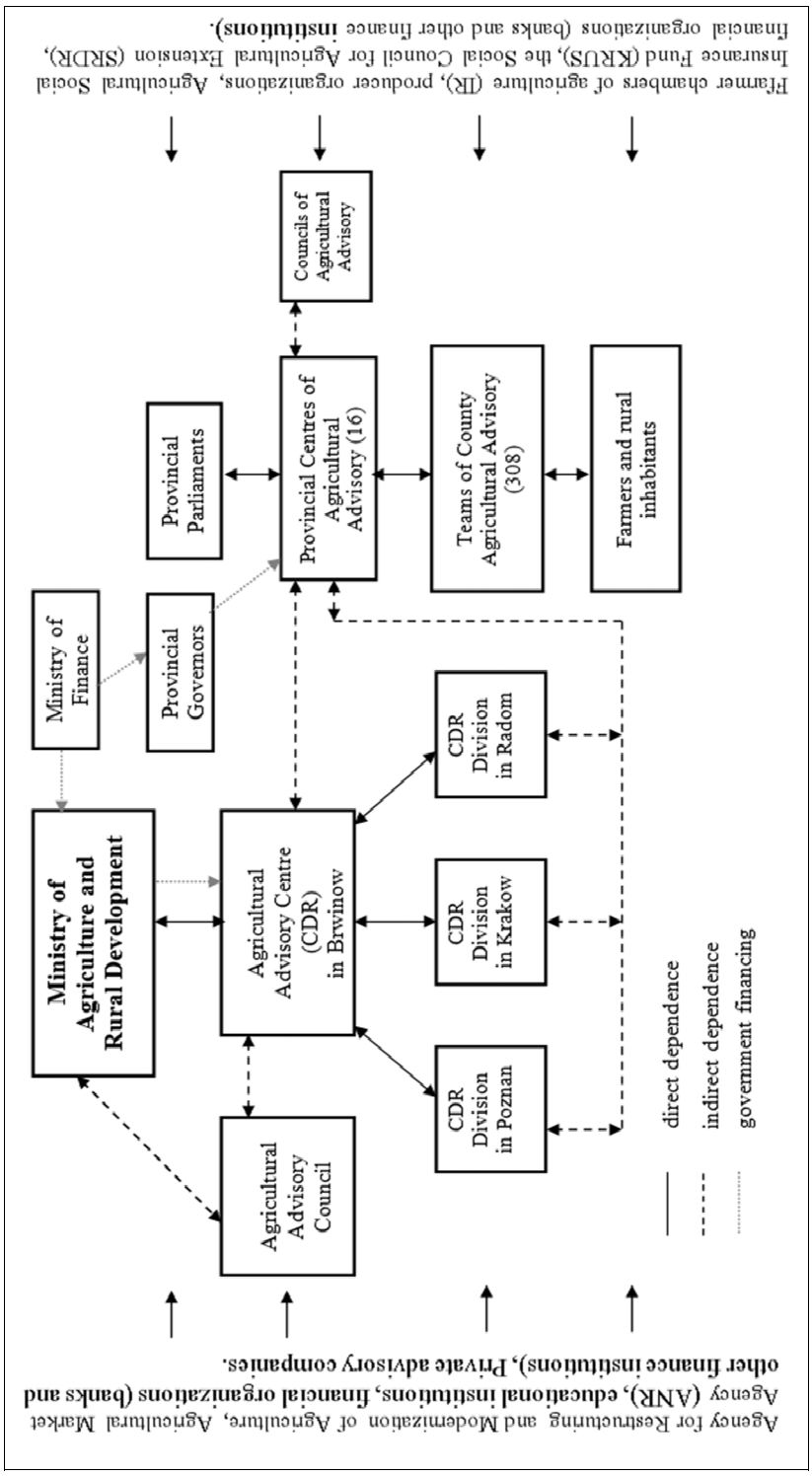
The present system of agricultural advisory was established by Act on Agricultural Advisory Bodies, done by Polish Parliament on October 22, 2004.[7] In this Act the mission, structure and tasks for two bodies – Agricultural Extension Centre (CDR – Centrum Doradztwa Rolniczego) and Provincial Centre of Agricultural Extension) (ODR - Osrodek Doradztwa Rolniczego) are defined. The description of extension system – its nodes, tasks, sources of financing, numbers and specializations of advisors, tools of advisory are showed in the next subchapters.

2.4.2 SCHEME OF ORGANISATIONAL STRUCTURE OF AGRICULTURAL EXTENSION IN POLAND

In the structure of agricultural extension there are two main institutions of government administration – Ministry of Agriculture and Rural Development (responsible for the implementation of the state agricultural policy and the common agricultural policy of the European Union) and the Ministry of Finance (responsible for the financing of majority advisory services in agriculture and rural areas). Ministry of Agriculture and Rural Development is responsible for the management and control of Agricultural Extension Centre and its three divisions (the left part on the scheme 2.1). However, Provincial Agricultural Extension Centres are under of Provincial Parliament, but they are party funding by the Ministry of Finance through Provincial Governors (right part on the scheme 2.1).

[7] Act on Agricultural Advisory Bodies, done by Polish Parliament on October 22, 2004 (Journal of Laws No. 251, item 2507.

Scheme 2.1 Organization of Agricultural Extension in Poland (state in 2012)



Source: own study

In environment of institutional structure of agriculture and agricultural extension there are also institutions and organizations supporting (direct or indirect) both, producers and processors as well as advisory services. Among these organizations are government organizations - the Agency for Restructuring and Modernization of Agriculture (ARiMR), Agricultural Market Agency (ARR), the Agricultural Property Agency (ANR), farmers' self-organizations (farmers chambers of agriculture - IR), producer organizations (producer groups), insurance (Agricultural Social Insurance Fund - KRUS), financial organizations (banks and other finance institutions), educational institutions.

2.4.3 DESCRIPTION OF PARTICULAR NODES IN EXTENSION STRUCTURE

2.4.3.1 AGRICULTURAL ADVISORY CENTRE, CDR, IN BRWINOW

The Agricultural Advisory Centre[8] in Brwinow near Warsaw was established in 1947. It is an institution responsible for the professional development of agricultural advisors. The improvement in advisors' knowledge and skills is achieved through seminars, trainings, courses, practical trainings, workshops, shows, demonstrations, national and foreign study trips, as well as postgraduate studies in cooperation with universities. The CDR operates in its present organisational form since January 1, 2005 and is a part of the Ministry of Agriculture and Rural Development. It was established as a result of transforming the previous training unit, called the National Extension Centre for Agriculture and Rural Development. The CDR has three branches or divisions, in Krakow, Poznan and Radom. It is a governmental unit and reports directly to the Minister of Agriculture and Rural Development and its scope cover the whole country. The CDR is managed by a director, appointed by the Minister of Agriculture and Rural Development.

The tasks of the CDR as specified by the Act on Agricultural Advisory Bodies of October 22, 2004, include in particular:

- prepare implementation methods for tasks and activities of Provincial Centres of Agricultural Advisory (ODR),
- prepare and transfer information and training materials for the ODR,
- conduct trainings for of agricultural advisors employed in ODRs, and in private or commercial advisory companies, as well as for teachers in schools of agriculture,
- run the central information system and data bases for the purposes of agricultural extension,
- organize shows, seminars and conferences,
- disseminate the results of scientific research carried out for agriculture, as well as the preparation of analyses and forecasts with respect to the development of agricultural extension.

The Social Council for Agricultural Extension, an outcome of the Polish and American Extension Program, is appointed by the Minister of Agriculture and Rural Development. Since 2004, this Council has 11 members and they include: 2 representatives of the Minister of Agriculture and Rural Development, 2 representatives of the National Board of Agricultural Chambers, 4 representatives of farmers' trade unions and 1 representative for each of the following institutions: universities, development and research units and the Convent of Marshals (the Marshal Office).

The CDR sets an advisory program on an annual basis, as well as the priorities for action for the whole year. The plans are prepared at the state level and they take into account the

[8] The centre's name is confusing for foreigners and not adequate to their role. This is only a training centre for agricultural advisers who are not subordinated CDR!

needs of both agricultural advisors and farmers. The representatives from farmers' organisations in the Social Council for Agricultural Extension actively participate in establishing the priorities.

The CDR closely co-operates with the provincial ODRs, as well as with agricultural research institutes, government and local government administration bodies, farmers' organisations, agricultural universities, regional and local agencies, as well as agricultural chambers. Occasionally, it also establishes co-operation with the Union of Farmers, Farmer Associations and Organisations and other universities.

The main source of funding for the operation of the CDR are subsidies from the state budget (about 50% of the total). They consist of 'specific' funds (60%) and 'purpose fund' (40%). An equally important source of financing are revenues from business operations (approximately 48%), which virtually form the remaining part of the funds in the budget the ACR (table 2.2)[9].

Table 2.2 Basic sources of financing the operation of the CDR in 2010

Types of Revenue	Value (in thousand PLN)	%
Total revenue, including:	20,732	100.0
1. Allocations from the state budget, including:	10,047	48.5
- specific (remuneration of employees and maintenance)	6,025	-
- purpose (non-commercial activities)	4,022	-
2. Funds from the EU	112	0.5
3. Financial revenue	5	0,0
4. Revenues from business operations	10,004	48.3
5. Other revenue	564	2.7

1 Euro = 4.0 PLN, 1 $ = 3.0 PLN as of 1.12.2010

Source: Jozef Kania, 2010, www.worldwide-extension.org/europe/poland

The subsidies from the budget of the CDR are generally used for: remuneration, including social security contributions (56.1%), external services (26.4%), materials and energy (8.6%), shock-absorption of buildings and equipment (3.3%), repairs (2.4%).

Table 2.3 Employment structure in the Agricultural Advisory Centre, 2005-2010

Year	Number of advisors employed		by type of position			
			Management		Extension specialists	
	Total number	Share of women (%)	Total	Share of women (%)	Total	Share of women (%)
2005	109	64.2	31	54.8	78	67.9
2006	116	65.5	31	58.1	85	68.2
2007	118	68.6	26	61.5	92	70.6
2008	114	67.5	20	65.0	94	68.1
2009	118	67.8	21	61.9	97	69.1
2010	111	67.6	19	47.4	92	71.7

Source: J. Kania, 2010, www.worldwide-extension.org/europe/poland

[9] Kania J., Organisation of Agricultural Extension in Poland, 2010. www.worldwide-extension.org/europe/poland

CDR does not employ field extension advisors directly. Rather, it provides services mainly to general advisors and subject matter specialists who work in Provincial Centres of Agricultural Advisory. The CDR in Brwinow together with its three branches currently employs 111 persons (2010)[10]. Among all employees, women prevail (67.6%) and they occupy mainly the posts of extension specialists (71.7%) (table 2.3).

All persons employed in executive positions of the CDR have advanced, higher education degrees, although only three persons have a doctor's degree. Among the specialists, as many as 25% have completed only the secondary school level. These are mainly women who are specialists in rural households, but with job seniority and plenty of experience.

Table 2.4 Educational level of managers and extension specialists employed in the Agricultural Advisory Centre in 2010

Main categories of employment	Education						Total number of person
	Secondary		Bachelor and engineering degree		Master and an engineer (Master of Science)		
	M	W	M	W	M*	W	
Management			2	-	6	13	21
Specialists	8	17	13	5	19	45	97
Total	**8**	**17**	**25**	**5**	**25**	**58**	**118**
%	21.2 %		25.4 %		70.4 %		100 %

* including 3 persons with doctor's degree

Source: J. Kania, 2010, www.worldwide-extension.org/europe/poland

All other employees in the CDR add up to about 80 people. Persons in administrative positions constitute 12.7% of all the employees, 80% of which are women. Only 3 persons are employed as IT engineers. Drivers, receptionists and security workers constitute 7.9% of all the employees. As far as communication and modern technologies are concerned, 23 persons are employed, i.e. approximately 20%. Fifteen persons, i.e., 13%, work in information and publishing department, whereas there are 8 people, or 7% in the IT application department.[11]

Allocation of working time of specialists of CDR

The employees of the CDR spend most of their working time on education, information and extension activities (60.0%). Planning extension programs and supporting activities occupies approximately 25% of their working time. Other, non-educational activities such as improvement of work organisation, data collection, forecasting product prices and means of production, filling in subsidy applications, credit applications, writing business plans or agri-environmental plans, occupy more than 15.0% of their time.

Publishing activity of CDR

The CDR is responsible for the dissemination of knowledge about modern technologies of production, new qualitative requirements in agricultural production and environmental protection, as well as for the methodology of extension services, mainly by means of intensive publishing activity, namely by publishing:

- Training materials (for the purposes of courses and seminars for extension advisors and farmers),

[10] Kania J., Organisation of Agricultural Extension in Poland, 2010. www.worldwide-extension.org/europe/poland
[11] www.cdr.gov.pl

- Promotional materials: Brochures, leaflets, manuals, e.g. campaign regarding PROW 2007-2013 (Rural Area Development Program), manuals for agricultural extension advisors, e.g. Methodical guide for agricultural extension advisors, Methodology of agricultural extension, as well as for farmers, e.g. Environmental protection in agricultural farm – farmer guide, and many other.

The CDR also issues quarterly scientific journal – "Issues of Agricultural Extension" (Zagadnienia Doradztwa Rolniczego), in which the latest research findings in the field of the methodology of agricultural extension organisation, agribusiness operation, rural area development, agricultural policy and agricultural school system, as well as cooperation of science and business practice are published.

Since 2004, the CDR also provides an educational system for agricultural extension advisors on-line, which gains increasing popularity. Agricultural extension advisors have also the possibility to use the information on the extension-related portal and in the central information system, as well as databases available on the website of the CDR (www.cdr.gov.pl).

2.4.3.2 PROVINCIAL CENTRES OF AGRICULTURAL ADVISORY (ODRS)

General Information

Provincial Centres of Agricultural Advisory (Wojewodzkie Osrodki Doradztwa Rolniczego – ODR) are self-governed organisational legal entities operating on the basis of the Act on Agricultural Advisory Bodies of 22 October 2004 (Journal of Laws No. 251, item 2507 as amended). This Act went into effect on January 1, 2005, resulting in charges for selected services provided by the agricultural advisory centres. According to the competence act prepared by the Ministry of Internal Affairs and Administration approved by the Parliament of the Republic of Poland, 16 provincial ODRs subordinate to the province governor were transferred to the Provincial Parliaments on August 1, 2009 (Journal of Laws No. 92 of June 16, 2009, item 753) on the basis of the charter, which was approved by the Local Governments. The charter specifies the goals and tasks of the centres, their structure, as well as their method of administrative and financial management. In each of the 16 provinces in Poland there is one provincial ODR. Its name contains the name of the province e.g., Mazovian ODR or Malopolska ODR. Since 2009, the proper technical term for the Polish agricultural extension system is 'semi-autonomous'.

Provincial ODRs are part of the public sector. Pursuant to the Act of January 23, 2009 (Journal of Laws No. 92, item 753, Article 23 passage 6) they receive purpose subsidies from the state budget to carry out tasks specified in Article 4 passage 2 of the Act of October 22, 2004 on agricultural advisory bodies (non-commercial extension activities) and specific subsidies for the remuneration of employees and maintenance of the centres.

The priority for the ODRs is to assist farmers and their families in making decisions that will help them achieve their goals. This is achieved by:

- actions taken to improve the level of qualifications of farmers and rural inhabitants,
- implementing the instruments of the European Union's Common Agricultural Policy,
- promotion of the multifunctional development of rural areas,
- promotion of environmentally-friendly management methods and environmental protection,
- assistance in implementing new requirements relating to agricultural production, the so-called mutual conformity principle (cross-compliance),
- implementation of new production technologies,
- protection and cultivation of cultural heritage at the village level,
- assistance in the creation of production groups.

Provincial ODRs focus on the execution of objectives that can be classified into four types:

- extension tasks, which consist in helping farmers in decision-making,
- information tasks, i.e., delivering information on new technologies and innovations to agricultural manufacturers without their assessment,
- educational tasks consisting in conveying knowledge and teaching adults (farmers and members of their families),
- popularising tasks consisting in the dissemination of new technical and technological solutions in rural areas.

Each provincial ODR is associated with its own Social Council for Agricultural Extension, which is a consultative-advisory body to the director of the ODR and counts 11 people. It usually includes the representatives of the provincial parliament, the agricultural chamber, and members of farmers' trade unions, representatives of scientific centres (universities) and research and development units, as well as representative from agricultural schools.

Human resources

In period 2005-2011 the number of advisory staff at Provincial ODRs was successively declined (table 5). Women dominate among the agricultural extension advisors (54.3%). At the management level, it can be noted that men dominate in executive positions (60.1%). Nevertheless, women are assigned more often in the following positions: extension specialist and field extension advisors (59.2 and 55.6% respectively). Since 2006, the number of full-time posts in provincial ODRs has declined (reduction by almost 20%).[12]

Table 2.5 Employment of Agricultural Extension Advisors in Provincial ODRs, 2005–2011

Year (as of 1st January)	Total advisors			of which					
				management of the organisation		extension specialists		field advisors	
	Total	of which		of which		of which		of which	
		M	W	M	W	M	W	M	W
2005	4 342	2059	2283	304	196	438	616	1317	1471
2006	4 212	1939	2273	310	190	432	613	1197	1470
2007	4 158	1900	2258	292	200	434	612	1174	1446
2008	3 967	1789	2178	296	190	399	593	1094	1395
2009	3 803	1677	2126	266	197	382	597	1029	1334
2010	3 579	1563	2016	263	202	349	553	951	1261
2011	3 805	1649	2156	261	208	353	569	1035	1379

M - man, W - women

Source: own study

Educational level of Provincial ODRs extension staff

Most of advisors (86.1%) have a university degree. Advisors with only secondary education are older employees with very good experience and many certificates (table 2.6).

[12] www.cdr.gov.pl

Table 2.6 Structure of education level according to position and gender in Provincial CDRs (2011)

Main categories of employment	Number of people according to level of education										Total	
	secondary		bachelor		Engineer		master's degree, engineer (Master of Science)		PhD			
	M	W	M	W	M	W	M	W	M	W	M+W	%
Managers	11	3	3	3	37	24	204	161	11	6	463	12,2
Extension specialists	19	33	4	11	60	46	286	500	13	7	979	25,7
Field advisors	195	266	19	33	189	182	624	846	3	6	2 363	62,1
Total = 100%	13.9%		1.9%		14.1%		68.9%		1.2%		3 805	100,0

Source: own study

Other types of employees in the Provincial ODRs

Other staff is employed as IT engineers and in administrative services. This also includes young interns and drivers, receptionists and security workers. Women dominate among administrative staff and interns employed in 2011 (61.5% and 70%, respectively), whereas IT engineers are mainly men (94.5%) (table 2.7).

Table 2.7 Other employees (numbers for 2011)

Item		Total	Type of employment:			
			administration	IT engineers	interns	drivers, receptionists, security
Other employees	number of person	1 092	645	55	80	312
Share of women	number of women	672	480	3	56	133
	%	61.5%	74.4%	5.5%	70,0%	42.6%

Source: own study

Specialists provide advices and information as well as conducting trainings. The largest percentage of advisors specializes in plant production (producing cereals, root crops, high protein and oil plants), as well as in ecological agriculture. More than 10% of the advisors deals with the issues of agricultural farm management (farm economics and organisation, marketing of agricultural products) and the issues related to the implementation of the instruments of the European Union's Common Agricultural Policy and policy related principles (cross-compliance, financial support from the EU) (table 2.8).

Table 2.8 Types of specialisation among advisers in the Provincial ODRs (2011)*

No	Type of specialisation	Number of advisors with particular specification	%
1	Cereals production	1386	36.4
2	Farm economics and organisation	1146	30.1
3	Root crops	1102	29.0
4	Ecological agriculture	043	27.4
5	High protein and oil plants	945	24.8
6	Environmental protection and climate change	869	22.8
7	Cross-compliance and OHS	753	19.8
8	Marketing of agricultural products	714	18.8
9	Financial support from the EU	650	17.1
10	Help and promotion of local non-governmental organisations (e.g. agri-tourist associations)	612	16.1
11	Ground and water management	503	13.2
12	Organisation of production groups	424	11.1
13	Forestry	266	7.0
14	Animal production	110	2.9
15	FADN accounting	79	2.1
16	Fishery	63	1.7
17	Mechanisation of agriculture and rural constructions	51	1.3
18	Rural household	16	0.4
19	Crediting agriculture	8	0.2
20	Soil testing trainings	14	0.4
21	Possibility to subsidise non-agricultural activity	6	0.2
22	Taxes and insurance	6	0.2
23	Economics of agriculture	10	0.3
24	Agri-touristic	7	0.2
Total number of advisors in 2011		3805	x

*Some advisors have more than one specialisation

Source: own study

With respect to market products and specialistic services, the largest percentage of advisors deals with preparing agri-environmental plans and writing business plans. Many extension agents provide advises in the field of animal production, mostly swine and dairy cattle (table 2.9). Additionally, more than 40% of the agricultural extension advisors can submit applications for direct subsidies. Applications for other funds within the Common Agricultural Policy are prepared by nearly 24% of the employed advisors.

Table 2.9 Types of specialisation according to market products and type of services (2011)

No	Specification	Number of advisors with particular specification	%
1	Preparation of agri-environmental plans	1 269	24.7
2	Preparation of business plans	1 139	22.1
3	Swine production	728	14.2
4	Dairy cattle production	700	13.6
5	Educational projects	486	9.4
6	Vegetables production	317	6.2
7	Fruit production	296	5.7
8	Other	153	3.0
9	Tobacco	35	0.7
10	Hop	18	0.3
11	Renewable energy, preferential credits	3	0.1
Total number of advisors = 100,0%			

Source: own study

Statistically, the number of farms per advisor nationwide is very high and amounts to 628.7. If, however, one takes into account only the economically viable farms (those with over 4 ESU), then the number of farms per advisor is definitely lower and amounts to 122.8. Moreover, advisors often co-operate with semi-subsistence farms (2-4 ESU). Hence, the nominal number of farms over 2 ESU is higher and amounts to 201.6 per advisor. Also, the number of farms that receive direct subsidies and, consequently, extension services when filling in the applications for these subsidies is high. Based on this metric, each advisor serves on average 367 farms. All these ratios confirm that the number of farms per advisor is generally very high in Poland and that there is quite a bit of variation from provincial ODR to provincial ODR in the number of advisors per farm. Number of farms with arable lands, according to the data of the National Statistical Office (GUS), as well as their economic structure according to the so-called level of standard gross margin expressed in ESU (European Size Unit = 1,200 euro) and to the number of farms recorded by ARiMR[13], i.e. the farms that receive direct subsidies (more than 1 ha) from the perspective of the whole country and provincial ODRs, presents table 2.10.

[13] ARiMR: Agency for Restructuring and Modernisation of Agriculture, GUS: National Statistics Office in Poland

Table 2.10 Number of farms per advisor according to ARiMR and GUS, 2009

No.	Province/ ODRs	Number of agricultural extension advisors	Number of farms > 1 ha according to ARiMR		Total number of farms (the National Statistical Office - GUS)				Number of farms according to GUS per advisor		
			total	per advisor	Total	0-2 ESU	2-4 ESU	> 4 ESU	total	> 2 ESU	> 4 ESU
1.	Lower Silesian	286	58 123	203.2	126 214	91 117	13 739	21 358	441.3	122.7	74.7
2.	Kuyavian-Pomeranian	205	66 725	325.5	98 465	48 696	11 323	38 446	480.3	242.8	187.5
3.	Lubelskie	305	179 891	589.8	283 787	183 533	48 102	52 152	930.4	328.7	171.0
4.	Lubuskie	103	20 288	197.0	41 466	29 692	5 261	6 513	402.6	114.3	63.2
5.	Lodzkie	262	127 345	486.0	183 628	109 951	29 490	44 187	700.9	281.2	168.7
6.	Little Poland	221	128 472	581.3	278 666	239 835	24 001	14 830	1 260.9	175.7	67.1
7.	Mazovian	505	211 056	417.9	302 291	170 854	50 805	80 632	598.6	260.3	159.7
8.	Opolskie	94	28 203	300.0	60 004	43 411	4 996	11 597	638.3	176.5	123.4
9.	Podkarpackie	343	121821	355.2	280 554	250 883	19 978	9 693	817.9	86.5	28.3
10.	Podlaskie	232	82 298	354.7	107 852	51 877	17 508	38 467	464.9	241.3	165.8
11.	Pomeranian	190	38 722	203.8	57 422	31 415	7 517	18 490	302.2	136.9	97.3
12.	Silesian	130	50 669	389.8	143 098	123 802	8 848	10 448	1100.8	148.4	80.4
13.	Swietokrzyskie	185	90 330	488.3	129 901	86 989	23 728	19 184	702.2	232.0	103.7
14.	Varmian-Masurian	176	42 841	243.4	64 859	35 466	7 763	21 630	368.5	167.0	122.9
15.	Greater Poland	415	121 909	430.5	178 664	92 441	21 091	65 132	430.5	207.8	156.9
16.	Western Pomeranian	151	28 305	187.5	54 086	34 274	5 665	14 147	358.2	131.2	93.7
TOTAL		3 803	1 396 998	367.3	2 390 957	1 624 236	299 815	466 906	628.7	201.6	122.8

Source: own study based on GUS, 2010

Number of extension agents in the 16 provincial ODRs and their average number in a county extension unit, as well as the number of districts (the smallest local government administrative unit) served usually by one advisor presents table 2.11.

Table 2.11 Number of counties and districts per one advisor by provinces in 2011

No.	Province	Number of counties	Number of agricultural extension advisors	Number of agricultural extension advisors/ county team	Number of rural and urban and rural districts	Number of extension advisors/ district
1.	Lower Silesian	26	286	11.0	133	2.2
2.	Kuyavian-Pomeranian	19	205	10.8	127	1.6
3.	Lubelskie	20	305	15.3	193	1.6
4.	Lubuskie	12	103	8.6	74	1.4
5.	Lodzkie	21	262	12.5	159	1.6
6.	Little Poland	19	221	11.6	168	1.3
7.	Mazovian	37	505	13.6	279	1.8
8.	Opolskie	11	94	8.5	68	1.4
9.	Podkarpackie	21	343	16.3	143	2.4
10.	Podlaskie	14	232	16.6	105	2.2
11.	Pomeranian	16	190	11.9	98	1.9
12.	Silesian	17	130	7.6	118	1.1
13.	Swietokrzyskie	13	185	14.2	97	1.9
14.	Varmian-Masurian	19	176	9.3	100	1.8
15.	Greater Poland	31	415	13.4	207	2.0
16.	Western Pomeranian	18	151	8.4	103	1.5
Total		314	3803	12.1	2172	1.8

Source: own study

2.4.4 SOURCES OF FOUNDING

The basic sources of funding in 2011 were: subsidies from state budget, funds from other public sector, EU funds, and service takers (beneficiates – farmers, businessmen, and farmer's organisations). The participation of different sources of funding in total ODRs budget is as follow:

- subsidies from the state budget 43.9%, which include specific subsidies (60%) and purpose subsidies (40%),
- funds from other units of public sector – 46.4%, which include, most of all, the funds from the Provincial Funds for Environmental Protection and Water Management (59%), Province Marshals Offices (28.2%), Provincial Employment Agencies (8.8%), Animal Science Institute (2.6%), as well as Regional Social Policy Centres (1.4%),
- other: EU funds (3.0%), business income (1.8%), financial revenue (1.0%), other revenues (3.9%).[14]

2.4.5 EXTENSION ACTIVITIES

The most important group of customers for Polish advisors are small and medium farms. This is related to specific characteristics of Polish agriculture (fragmentation of farms,

[14] Kania J., Organisation of Agricultural Extension in Poland, 2010. www.worldwide-extension.org/europe/poland

agrarian overpopulation, weak soil, poor use of production means). Nonetheless, advisors still ranked "helping large market oriented farms" fourth, before assistance to the so-called young farmers, i.e., persons below the age of 40, and rural women (table 2.12).

Table 2.12 Importance of Major Groups of Customers

Group of customers	Place in the ranking
Small and medium farms	1
Young farmers	2
Rural women (nutrition, health, hygiene etc.)	3
Large market oriented farms	4
Rural youth	5
Producers of export products	6
Farms managed by women	7
Very small subsistence farms	8
Unemployed persons	9

Source: own study

Agricultural advisors spend almost half of their working time on educational, informational and extension activities (46.3%). Other non-educational activities such as improvement of work organisation, data collection, forecasting product and means of production prices, filling in subsidy applications, credit applications, writing business plans or agri-environmental plans, occupy more than 38.1% of the working time of agricultural extension advisors. Planning extension programs and supporting activities occupies 15.6% of their time.

With respect to extension activities, most of the working time is dedicated to direct contact with farmers (individual extension), both at an advisor's workplace and at a farmer's farm, and to filling in applications for direct subsidies and organisation of training sessions.

Types of extension methods used by field advisors

Individual extension is the most common methodology applied (this form occupies 59.3% of the working time of agricultural extension advisors). Most often, this form is implemented by direct contact with the agricultural producer, i.e., by meetings with farmers in advisory centres (district or county office) or at a farmer's farm. One third of working time (29.3%) constitutes group extension service, implemented most often by in form of shows, seminars, demonstrations, workshops, etc. With respect to mass extension service (11.4%), the most commonly applied extension method are mass media, i.e. TV and radio.

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3 AGRICULTURAL EXTENSION IN THE NETHERLANDS

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3.1 INTRODUCTION

In the EU27, The Netherlands is considered to be the largest of the smallest countries. This mainly refers to its population of 16.6 million, only to be surpassed by 7 other EU member states. But the geographical area relatively is a lot smaller. There The Netherlands scores position 22. Only Belgium, Cyprus, Luxembourg, Malta and Slovenia are smaller[15].

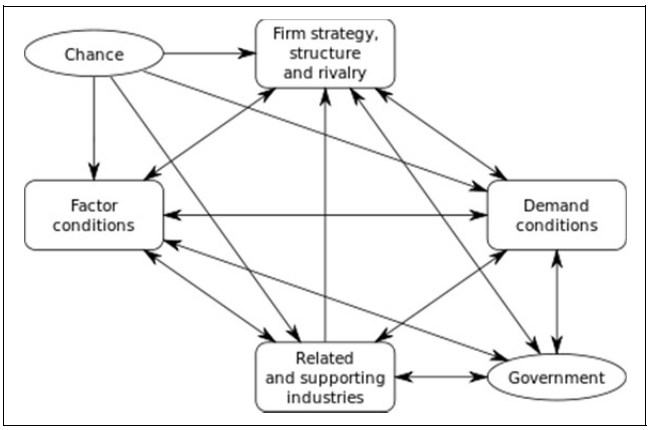
Despite this small area, the Netherlands is one of the biggest net exporters of agricultural products. After the United States, the Netherlands scores second in the world.

There are many factors which helped the country to reach this place[16]:

1. The geographic position, bordering the North Sea
2. A moderate climate with a fair rainfall distribution
3. Fertile soils
4. Strong supportive government policy
5. Availability of natural gas → green house production of flowers, plants and vegetables
6. Innovative supply and processing industries
7. Well developed entrepreneurial skills
8. Excellent agricultural research and education system.

All factors described by Michael Porter in his diamond model, see figure 3.1, are favourable for the Dutch agricultural sector.

Figure 3.1 The Porter Diamond



Source: http://en.wikipedia.org/wiki/Diamond_model

[15] European Union Countries
[16] Agriculture

Factor 1 and 5 can be considered to be 'chance', factors 2, 3 and 7 improve the 'factor conditions', in particular land and entrepreneurship, factor 4 is naturally 'government', factor 6 and 8 are part of 'related and supporting industries'.

It can also be argued, that the strong competition between the approximately 50,000 Dutch farmers, one of the examples of a monopolistic competition, is part of 'firm strategy, structure and rivalry'.

The 'demand conditions' in the Dutch market are supporting innovation as well, because it is a highly developed market.

The focus in this chapter is on the last three factors described, number 6 - 8, a combination of an innovative industry, well developed entrepreneurial skills and an excellent agricultural research and educational system.

The order of the chapter is as follows. First a theoretical background will be given about the essence of agricultural extension. The next part in this chapter is a part about the actors in and around the Dutch farming sector. After that the focus will fall on agricultural extension and privatization. Before the conclusions are drawn, some attention will be given to learning-by-experience.

3.2 WHAT IS AGRICULTURAL EXTENSION?

Agricultural extension, like many other concepts, has many definitions[17]. Since the theory of agricultural extenstion is dealt with in another chapter in more depth, here only one definition is given and explained.

Based on the definition of extension proposed by Leeuwis[18], here is a definition of agricultural extension: "A series of embedded communicative interventions that are meant to develop and/or induce innovations in the agricultural sector, which should resolve problematic situations."

In the past, agricultural extension was mostly seen as dissemination of (new) knowledge to farmers to help them with their farming practices. Researchers and/or specialised advisors would visit farmers or farmer groups and then explain the new procedure how to e.g. grow your potatoes in a more efficient way. This was mostly a top-down approach where the farmer was seen as ignorant and the researcher as the only source of knowledge and technology.

This approach is no longer found in the definition given above. The reason for this is that the Dutch society has changed and that farmers are facing other challenges nowadays.

To describe a few of those changes and challenges, not only for the Dutch, but applicable in the Dutch farming sector as well:

1. Since the world population is growing and people have more money to spend, especially in emerging economies like India and Brazil, the demand for food will continue to increase. The past has shown that generic solutions like the Green Revolution did not work, but still the agricultural sector needs to come up with innovations to increase food production in non-orthodox ways.
2. The increasing pressure on the environment is a.o. caused by a larger agricultural production and is seen as a threat to a sustainable society. Farmers therefore have to change their way of production and usage of materials like pesticides. Next to that, many of these processes to protect the environment need to be coordinated on a global scale. This implies that farmers need to learn more about their involvement not only at the local level, but also a global level.
3. Another change about agriculture is the perception of farmers not only as food and non-food good producers. Farmers are seen as landscape preservationists. Farmers also have

[17] Leeuwis, pages 23 - 29
[18] Leeuwis, page 27

to keep a lot of governmental requirements in order to receive government support, like animal welfare rules. In the Netherlands especially, where land is very scarce, farmers and government bodies together are looking for other, higher added-value products, e.g. agro-health care services. Farmers have to communicate more with other parties than was necessary in the past.

4. Tracking and tracing, knowing where products originate and what are the raw materials used in food, are gaining in importance. In 2001 we have seen a huge outbreak of foot-and-mouth disease in the UK, with outbreaks across the EU, including the Netherlands. Due to this more than 6 million cattle were killed trying to prevent the virus from spreading. There is also a fear with consumers to eat GMO food. Farmers are nowadays forced by other partners in the supply chain to give guarantees concerning their inputs and production methods
5. Knowledge intensity of agricultural goods has increased over time. It is believed that more and more knowledge is necessary to remain competitive. The Dutch flower sector is an example. Despite the high costs for soil use, energy and labour costs, still over 50% of world exports of flowers comes from The Netherlands.
6. Many present-day innovations in the agricultural sector require cooperation between farmers, because these innovations exceed the individual farm-level, e.g. chain management or management of collective natural resources.
   Therefore agricultural extension needs to shift away from individual adoption of innovations to collective adoption. This implies that persons involved with agricultural extension need other competencies in order to be successful. They need to deal with heterogeneous interests, with conflicts and different farmers' perspectives, i.e. they need negotiation skills and conflict resolution.
7. Co-designing, the shared process of designing and adapting to *local* situations, seems to be a better way of implementation. There does not seem to be an all encompassing solution fitting all local circumstances. Researchers tend to present their solutions in this universal direction and farmers are very suspicious of these answers. Focusing on processes of innovation and actively involving farmers is a better way to make innovations accepted.
8. An assumption made by many agricultural researchers is that all farming activities develop in the same direction, namely large scale operation and high-tech farming. This does not seem to be the case. Farmers can develop in various directions and have a positive financial result. Some want to purchase many inputs, others want to grow these themselves. Others capitalise on their craftsmanship and know that this can be better done on a smaller scale.
9. Innovation projects can hardly be planned due to their nature. It even seems likely that innovation project planning, including fixed objectives, has hindered a successful project realisation.[19]
   The moment a proposed innovation wants implementation, conflicts will most likely arise, because people have different interests and different perspectives. Extensionists need to be able to cope with this, i.e. the planning should be open to adaptation and should be flexibly organized.
10. Lastly, in many countries, extension services are less and less supported by the governments. In developed countries governments have the opinion that farmers have to pay for the extension services provided. In other countries governments are not always convinced that extension services provide an added value to the agricultural sector. All in all the organisations need to adapt their strategy and operations to the new way of

[19] Leeuwis, page 14

thinking. They may have to look for other sources of income and/or reduce their expenses. This requires other competences from extension services staff.

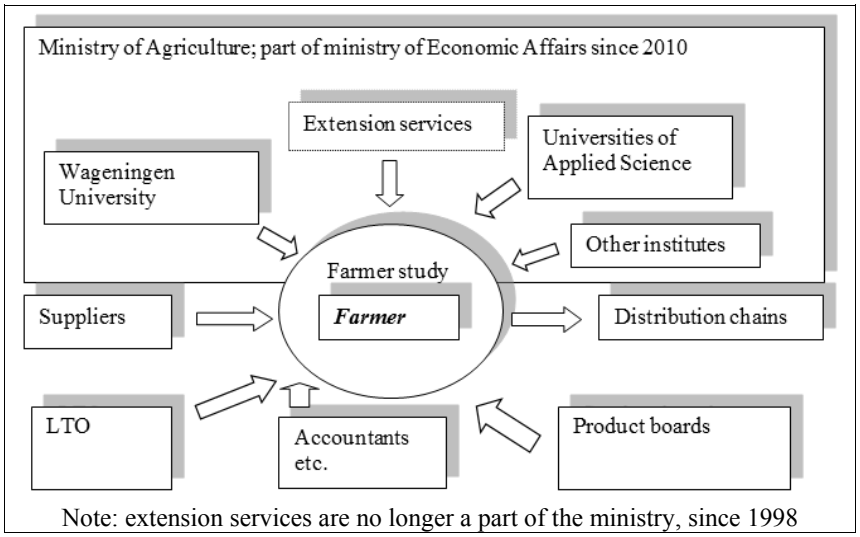
Some new trends in the agricultural extension area are very aptly described in some recent articles[20]. One trend which is recognised is that research has become more and more demand driven whereas in the pas it was mainly supply driven. Never the less, due to influences of other actors, farmers research needs are not always found in the research questions. It is advised to better institutionalize the involvement of the farmers in the research question formulating process. But, even if these so-called innovation brokers are given an intermediary role, their role is not always recognised by the farmers, because the relevance of their activities is difficult to see for the farmers.

To conclude, many activities formerly exclusively done by extension services are now also done by other companies, like consultancy companies. Extension services do other activities as well. They focus much more on communication, getting the 'message' across, than on finding a technical solution to a problem. It may be argued that the term extension is no longer a fitting one, but in this chapter the term will be used, for convenience sake.

3.3 STAKEHOLDERS IN DUTCH AGRICULTURAL EXTENSION

The situation in The Netherlands regarding agricultural extension can be structured as is done in figure 3.2.

Figure 3.2 Stakeholders in Dutch agricultural extension



Note: extension services are no longer a part of the ministry, since 1998

Source: made by the author

3.3.1 MINISTRY OF AGRICULTURE

The Ministry of Agriculture has existed seventy-five years as a separate ministry. It began in 1935, as the Ministry of Agriculture and Fisheries, and ended in 2010, when it was

[20] Klerkx 2008a, Klerkx 2008b and Klerkx 2012

called Ministry of Agriculture, Nature and Food Quality[21]. It became part of the ministry of Economic Affairs in 2010, when the administration of prime-minister Rutte started.

There had been talk of uniting both ministries for a long time already, but due to an expressed policy of making the government smaller the total number of ministries was reduced in 2010, a.o. by joining together the above mentioned ministries.

The ministry played a very important role in the past regarding extension. The official extension service, DLV, was part of the ministry till 1998, when DLV was privatized. Now the ministry is more creating conditions for agricultural extension than executing it.

3.3.2 EXTENSION SERVICES AND FARMER STUDY GROUPS

DLV (Dienst LandbouwVoorlichting) has a long history. It started at the end of the 19th century, in 1890. Due to a societal trend of a smaller government and the belief that farmers put more value on services they pay for, it was decided that DLV would become a private organisation. Still, the government owned the majority of the shares.

Nowadays, there are five branches[22], DLV Plant, DLV Animal, DLV Real Estate, DLV Energy, DLV Construction. Together the company basically gives advice about anything related to farming from construction, to how to feed the animals or how to grow the potatoes. DLV is a large company having more than 400 employees. Of the branches only DLV Plant is active on the non-Dutch market.

Next to the official DLV, each farmer was free to start or to participate in its own study group. There are too many to mention in the Netherlands, but an example is 'Landbouwvoorlichting Dalfsen', a group of 160 farmers which has existed for 75 years now[23].

An important difference between DLV and other study groups is that at DLV people give advice for a living and that in the study groups most, if not all, participants work on a voluntary basis.

3.3.3 UNIVERSITIES (WAGENINGEN AND OTHERS)

In the Dutch educational system a distinction is made between academic universities and universities of applied science. In the academic university there is more stress on theoretical research, to further the theory. In Holland there is only one such agricultural university, namely Wageningen university. Universities of applied agricultural science are more focused on application of the theoretical research and on doing practical research, next to teaching new students. Universities of this type are found in 6 places, in Almere, Den Bosch, Dronten, Leeuwarden, Velp and Wageningen.

A special characteristic of these universities is that they are financed by the Ministry of Agriculture (since 2010 part of the Ministry of Economic Affairs) and not by the Ministry of Education, like all other universities.

This is beneficial for agricultural extension, because the Ministry of Agriculture is better informed about the needs of the farmers and can focus on these.

The Wageningen University is world famous for its research and education and is very much involved in agricultural extension worldwide. It does so by offering a high level of education in Wageningen to many international students and through special institutes supporting agricultural extension in many countries[24].

[21] Ministers of agriculture
[22] Extension services
[23] Extension services Dalfsen
[24] Chavez-Tafur was written on behalf of ILEIA, an organization closely related to Wageningen university.

The universities of applied science do participate in agricultural extension as well, but more on a project basis. To give an example about Dronten university (where the author is working), many projects in Africa, particularly Angola, Egypt, Ethiopia, Ghana and Kenya with the aim of supporting agricultural development have been executed in the past and still are taken on. The Dronten University also participated and participates in projects in Bulgaria, Russia, Ukraine.

3.3.4 OTHER INSTITUTES E.G PTC+

On a more practical basis the organisation of PTC+ is active. A standard approach is that people participate in a training course, e.g. about dairy farming or horticulture in one of the five training centres in The Netherlands.

PTC+ is also executing projects abroad, financed by the Dutch government, sometimes together with universities of applied science or Wageningen University. In typical projects, all knowledge institutes participate together.

3.3.5 FARMERS

Over the years the number of farms has diminished, fairly rapidly. Just between 2008 and 2011 the number of holdings went from more than 57 thousand to less than 51 thousand, a decrease of 12% in 3 years[25]. Never the less the total agricultural production is still increasing, meaning that the size of a farm is quickly increasing.

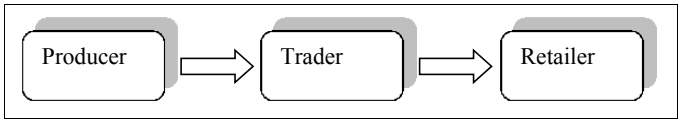
A typical farmers job is changing the last years, because of this. In the past a farmer was more focused on production and technical details of farming. Now he[26] has to know more about management, marketing, human resources and communication. More and more, farmers have a Bachelor or even Master degree.

Another trend which is playing an influential role in farmers' profession is Internet. It has become much easier to find relevant information in a short period of time. A problem of this may be that it is not always easy to estimate the true value of information on Internet, so there will always be a group of farmers, which wants confirmation by someone in person.

3.3.6 AGRICULTURAL DISTRIBUTION CHAINS

Through a distribution chain goods are being distributed to the consumers, in the country and abroad. Of agricultural goods more than 50% are exported, although most of it is exported within the EU, close-by. A typical distribution chain starts with a processor of goods from a farm, the producer, continues with a trader if goods are exported and continues with a retailer (figure 3.3).

Figure 3.3 Typical (international) distribution chain



Source: made by the author

Dependent on the distribution chain, one of the parties will be the so-called chain director, imposing its will on the other parties in the chain, including the farmer, supplying the goods to the producer. Most of the times this is either the producer or the retailer. The farmer is

[25] Statistics at Dutch farm level
[26] Although there are female farmers as well, more than 90% of the farmers in Holland is male.

relatively powerless. Knowledge which is owned by producer or retailer may reach the farmer in this way. E.g. the BRC certificate for food safety and quality is developed by British retailers and has a huge impact on farmers, since they have to comply to these rules. Their quality control has reached a very high level now.

3.3.7 SUPPLIERS TO FARMERS (MACHINERY AND SERVICES E.G. FINANCIAL SERVICES)

Each farmer needs supplies from many companies. A dairy farmer needs animal fodder, electricity, a stable, gates, a milking parlour, a milk tank etcetera. Some of these suppliers can play a very important role in agricultural extension. In the pig-to-pork chain, the supplier to the farm of the semen is also the buyer of the grown pigs. One may almost describe this as an outsourcing of the pig raising by the processing company to the farmer. Knowledge which is present in this company will be transferred to the farm, because that is in the interest of the company as well.

Suppliers of financial services, accountants in particular are very important for the farmer. Entrepreneurs, and farmers are no exception, find it difficult to share their financial position with other people. With accountants, it must be done and therefore the farmer needs to trust the accountant. What the accountant is suggesting in other management areas will be taken very seriously. In that respect the accountant can be seen as one of the toughest competitors of the extension services, especially after the privatization of these services.

3.3.8 LTO AND PRODUCT BOARDS

Two typical aspects of Dutch agriculture need to be described. The first is the LTO, the 'Land- en tuinbouworganisatie'. This is a organisation representing the interests of almost all farmers on the national and on the EU level. It functions as an influential lobbying organisation. In the field of agricultural extension it starts many projects which can help farmers to be more successful, e.g. a renewed quality control system for health care farms. It also has a well filled database with indicators to make clear the level of success for an individual farmer.[27]

Another group of representative organisations is the group of so-called product boards. The Dutch government delegated some of its responsibilities regarding the direct payments to farmers to these semi-governmental bodies. They are also representing other companies in the relevant supply chain for government decisions.

In 2012 there are 5 of these bodies, for arable farming, for horticulture, for dairy farming, for eggs, meat and livestock and for fish. The Dutch government is thinking whether these bodies still have a function or that these bodies can be abolished.[28]

The role of these product boards regarding agricultural extension is comparable to that of LTO, namely the starting of many projects, aimed at improving the management of organisations working in agribusiness.

To finish, an overview has been given of the Dutch farmer and the various stakeholders and parties involved in this sector. Two main areas need to be discussed, although these are not exclusively Dutch, namely the privatization trend, which agricultural extension has experienced some 20 years ago and the so-called learning-by-experience approach, which is used in agricultural extension as well. That will be done in the coming paragraphs.

[27] LTO
[28] Product boards [Information only in Dutch]

3.4 AGRICULTURAL EXTENSION AND PRIVATIZATION

The ideas to change the nature of agricultural extension from being publicly financed to a system of private financing started in the eighties of the 20th century[29]. A reason to start to think about this was that government budgets were needed in more and more areas and therefore a rethinking on already tasks of the government ensued. An associated reason was that the benefits of agricultural extension could not always be clearly shown.

When governments decided to privatise agricultural extension, the main path taken is that of mixed sources of funding, still partly public and now also a part financed by private parties. The Dutch farmers e.g. pay 50% of the total costs, either by membership of the public boards or directly for individual analyses.

A more theoretical background of the privatization debate is linked with the proper operation of a market. It is reasoned that for private goods normally the market will work and in those situations supply by the government of those goods is not necessary and inefficient, because the market can produce those goods in a cheaper way. For public goods (goods which normally cannot be produced on an individual basis, like an army or a water barrier), the government is held responsible, because the market will not produce these. For agricultural extension it is not clear if that is a private or a public good, because it has elements of both. Theoretically speaking the best would be to make this separation between private and public elements as clear as possible and let farmers pay for the private elements and let the government take care of the public elements.

It is also argued that the way agricultural extension is financed will influence the extension services offered to farmers[30]. Before the details are described the following parties may be financing agricultural extension:

- Governments
- Farmers' associations
- Consultancy and accountancy firms
- Commercial companies[31].

The last two parties can be considered private, the first one as public and the second party a bit in-between.

An effect of privatization that is observed is the decreasing willingness to share information, because parties become competitors of each other. Another effect which was observed was the more difficult linkage between research and extension. In governments there used to be staff, responsible for this linkage, but not so in the private sector. It may be that Internet access and the easier access to scientific knowledge is assisting the private sector. All in all the effects of financing on the services seem to limited.

3.5 LEARNING THROUGH EXPERIENCES

It is stated, earlier in this chapter that many general solutions do not seem to work[32]. The experience based way to implement innovations is taking this into consideration. The method used is also considering that the work of agricultural 'extensionists' has changed.

To start with that, these people need to be able to listen very well and formulate theses on the information provided by the farmer. They should also be able to assist the farmer in reflecting on the theses. Special about this experience based way is that it also encourages the farmer to use non-orthodox ways, like creatively drawing a solution to an existing problem.

[29] Rivera
[30] Ban
[31] These are similar to the stakeholders described in figure 2
[32] Paragraph 2, point 1 and 5

Shortly, there are three main steps, which are distinguished in this experience based way[33]. These elements are:

- Looking back on surprisingly successful action(s)
- Make the connection between these action(s) and the problem, which needs a solution through empathic observation
- Working towards a concrete future, in which the problem is solved

In this method one should be aware of possible pitfalls. For the first element a pitfall is that the listeners do not have a real involvement with the action, but remain outsiders. Another pitfall, in all elements, is that the listeners is thinking and acting too much from his own perspective. Then it will not help the farmer to reach a practical solution for his problem. A last pitfall which hinders realising the second and last element, is speaking too early and quickly. The result may be an impediment for a free brainstorming process.

3.6 CONCLUSION

Many other pages could have been filled with details regarding agricultural extension in the Netherlands, but time and space functioned as limiting conditions, but the following conclusions can be drawn.

The Dutch agriculture is (still) a very successful part of the Netherlands economy. Agricultural extension has played its role in assisting the farmers to be a competitive part of this sector.

At the same time agricultural extension has seen big changes in its role. In the past it was mainly done by governmental institutions, like DLV in Holland, nowadays many agricultural extension institutions have privatized and have a lot of competitors as well. Next to that the way in which agricultural extension is done has changed from top-down to participative. Now the focus is more on co-learning and process management than on technical instruction.

It can also be seen that the Dutch agribusiness is a complex myriad of all kinds of connections, all cooperating in certain ways.

The privatization of agricultural extension looks logical in developed countries for those parts of agricultural extension which can be seen as private goods. These goods can be produced on a market contrary to public goods, which must be produced by a governmental organisation.

Experience based learning fits perfectly in a new way of working of agricultural ‘extensionists’, but due to its unorthodox character, not all ‘extensionists’ will use it.

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4 AGRICULTURAL EXTENSION SYSTEM IN HUNGARY

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4.1 INTRODUCTION

It can be experienced that a certain emphasis had been put on the importance of the role of the productive man even in the early stage of economic thinking. Adam Smith examined the man's economical role in his influential work „Wealth of Nations" published in 1776. Smith thoroughly analyses the capital types in his work and lists the economically useful knowledge and ability of the population or that of each member of the society. Being one of the most complex branches of the national economies, in the agriculture, which is connected to bigger systems both vertically (agribusiness) and horizontally (multifunctional agriculture) due to its input and output and both its productive and service activities, the knowledge, experience and specialised knowledge of the producers, as parts of the human capital, are the determinative factors of the many-sided effective activity of enterprises. According to Coleman (1998) the material capital is formed by making it the tool to support raw material production. He thinks that a similar process characterises the formation of human capital: it is created by a kind of transformation (investment into the human capital: education, training, consulting etc.) which attributes people skills and abilities to carry out new ways of actions. Nowadays, in the era of information or in the period of knowledge-based economy, these skills are required since only the enterprises can be prosperous which are able to adapt, react to the new challenges, or which are able to manage the changes in the socio-economical and natural environments. The importance of adaptation is rooted in biology. As Charles Darwin's theory of evolution sees only the species having the best adaptability can survive in the process of natural selection. Evolution means the adaptation to the constantly changing natural conditions which can be reached by modifying the genome and thus the features of a given population. These modifications can be observed in the new or altered features which are left for the subsequent generation. This process leads to adaptation to the given environment which finally can result in formation of new species. According to Bakacsi et al. (1996) organisations can survive until they can give responses to the stimuli coming from outside. Also, they can survive until they are able to adapt to the changes in the environment, or are able to gain the necessary resources. These organisations assure their continuance with decisions and with constant communication with their environment.

Success of agricultural enterprises in adaptation greatly depends on the competence of economic leaders, producers and the agricultural labour force. Regarding this fact it is important to highlight the presence or the absence of the necessary knowledge and information. In the era of the knowledge-based economy, the modern, practical and convertible knowledge is of high value. It implies that the qualitative features of human resources (qualification, competence, work style and ethic, motivation etc.) have come into prominence as compared to the quantitative ones. It results that knowledge, skills and abilities influence the development of enterprises much more now than earlier. This point of view is supported by Berde (2003), too, who thinks that the success of any producing or service activities greatly depends on adaptability which is primarily determined by the quality and quantity of the producers' knowledge. This view is placed in the environment of knowledge-based economy characterised by scientific,

technical and informatics development. It is also due to a sharp market competition resulted from the continuous changes of economic and market processes.

Nowadays information is of great importance. On the present level of socio-economic development information is both the resource of crucial importance and productive factor of organisations (Eaton and Bawden, 1991; Pfau, 2004; Roóz, 2007). Information can be considered as knowledge which diminishes uncertainty, an input of decisions which is cardinal to activate and co-ordinate the other resources (Chikán, 2008). From this respect the presence of information and its availability have become indispensable to raise adaptability to a higher level (Galó, 2008), and to maintain the many-sided effective work of organisations (Bergeron, 1996; Roóz, 2007). The information which is available affects decisions and actions of both individuals and organisations, and thus it has a certain effect on their effectiveness, as well. As a consequence, the information, its presence or absence (being under-informed) is a significant differentiating factor between enterprises. Being well-informed has the benefit that we can make our decisions utilizing the knowledge which can improve their effectiveness, so we can give better responses to the challenges. The flow of information, communication, takes a very important part in the improvement of farmers' competence, in better adaptation to the changing environmental conditions, in the long run.

One way to give the necessary information to the farmers is participation at trainings, while the other is to employ the advisory system (Székely, 2011). The international literature on this specialised subject (see Kozári, 2000) points out that the essence of consultancy is to transmit information and thus to help, assist farmers. Cser (2001) says „by agricultural advising transmission of knowledge and information and assistance in making decisions should be meant." As a result, „agricultural extension in Hungary is supposed to be a service which helps farmers gain the new adaptable knowledge by applying efficient ways of communication" (Kozári, 2000).

4.2 AGRICULTURAL EXTENSION SYSTEM

The agricultural extension system in Hungary has significant traditions in history. The first official state consulting organisation was established in the 19th century and its operation was based on the institutions of agricultural vocational education (Székely and Halász, 2010).

Foundation of the present system goes back to the time after the political changes in 1989-90, to 1993 when the government's aim was to establish consultancy based on market demands and subsidised by the state. Experts agreed that only a consulting system subsidised by the state can make farmers prepared to the market economy in the years of the formation of the system. Recognizing it, a free network (network of village agronomists) subsidised by the state appeared in the system as a new element, from 1994 (Székely and Halász, 2010). The Network of Village Agronomists started to work on 1 March, 1994 on the basis of the Government Decision No 2003/1994 (17 of January). Since then the institutional structure of extension has been modified several time which primarily meant modification in the number of participants and their supervision.

The concept of agricultural consulting is determined by a FVM decree of 73/2007. According to the decree a service can be regarded as agricultural consultancy which is operated within the framework of the so-called Mezőgazdasági Szaktanácsadó Rendszer (MSZR) (Farm Advisory System[34]). In this respect the decree excludes from the agricultural extension the other

[34] By 1 January 2007, Member States had to set up a system of advising farmers on land and farm management, the so-called farm advisory system operated by one or more designated authorities or by private bodies. (Council Regulation (EC) No 1782/2003 of 29 September 2003).

agricultural advising services accomplished in different forms[35]. It means that the farm advisory system (MSZR) is considered to be an advising service in a restricted sense. However, as Székely and Halász (2010) pointed out besides MSZR, there are more organisations accomplishing agricultural consultancy which are excluded from the advisory system determined by the state because of their form. Still, they transmit important information for the farmers. As it is shown by Figure 1 the present Hungarian extension system includes more institutions and organisations. Consequently, agricultural advising is accomplished by a system of institutions which operate in different forms, and which are financed in different ways.

Figure 4.1 shows that farmers are provided either with free consultancy – entirely financed at public expense – or with commercial consultancy.

Free consultancy or customer consultancy – in other words – includes two organisational forms separately supervised: (1) the network of village agronomists with approximately 600 members and (2) Farm Information Service (GISZ) with about 200 members. This consultancy is free for the customers. The two organisations are financed by both national and EU sources. Operation of the network of village agronomists is co-ordinated by NÉBIH subordinated to the Ministry of Rural Development (VM). Village agronomists perform administrative and official tasks besides advising and assistant functions. Nevertheless, as Lajkó (2009) states, "the most important task of a village agronomist is to give assistance to solve the farmers' problems". However, the network of village agronomists is often criticised because their original task – giving advice – is being pushed into the background, and they spend most of their time with official and administrative tasks. Székely (2011) addresses another criticism according to which the information-giving activity and administrative authority of village agronomists can hardly be accommodated with the fact that while they help present the application, they also supervise it. In another respect the administrative authority questions the quality of customer service, the advising activity. However, Székely and Halász (2010) state, on the basis of an empiric research, that farmers put their faith mostly in this network and their connection to this network is the most extended one, so village agronomists are determinant factors of the national agricultural extension.

The network of Farm Information Service (GISZ) was established in 2007. GISZ is managed by the Hungarian Chamber of Agriculture in the framework of New Hungary Rural Development Programme (ÚMVP) axis 1. Thus, in the programming period between 2007 and 2013 chambers advisers provide free consultancy for the farmers in connection with the Common Agricultural Policy, the rural development and direct subsidies.

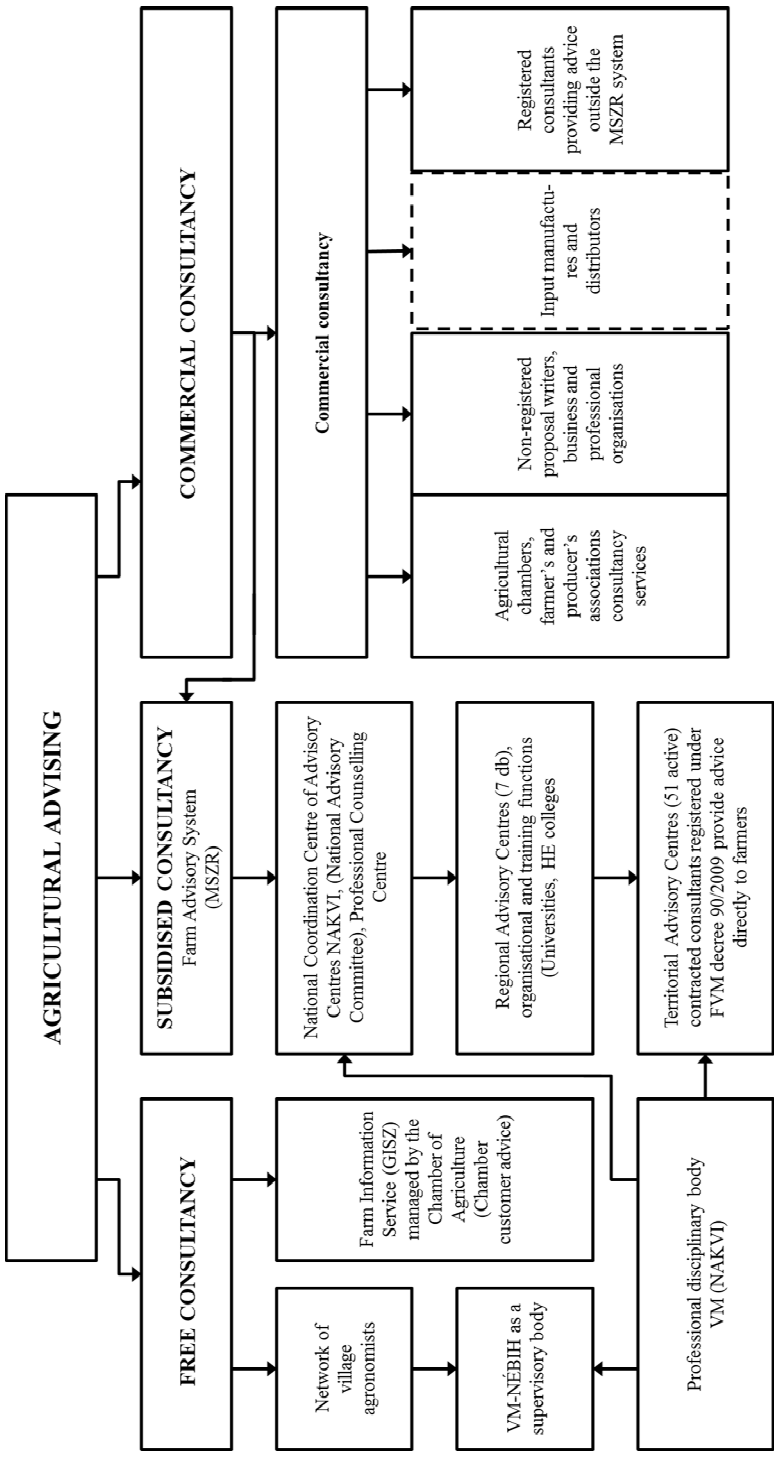
Assessing these two previous forms of customer advice service: network of village agronomists and chamber customer advice service (see Tóth, 2005), it can be concluded that distribution of the tasks between them did not improve the efficiency of the extension structure. This situation may have taken a part in that the network of village agronomists fully or partly will be attached to the chamber, said the temporary president of the Hungarian Chamber of Agriculture in an interview given to Napi Gazdaság[36] (Kiss, 2012). This significant structural change has been made possible by a law regarding the chamber of agriculture passed in the summer of 2012.

As it is shown in Figure 1 besides or instead of free consultancy the farmers have the opportunity to ask for commercial consultancy, as well. Commercial consultancy can be divided into two groups: (1) not subsidised from EU sources and (2) subsidised from EU sources.

[35] In connection with it the under-secretary of the Ministry of Rural Development (VM) stated on the formation of National Advisory Committee (OSZB) on 7 December, 2011 that village agronomists, agricultural chambers customer advisers and registered consultants should be meant by advisors (VM, 2011). As a result, agricultural extension implies a service which is realised within the framework of the network of village agronomists and Farm Information Service GISZ), besides MSZR (Farm Advisory System).

[36] Napi Gazdaság – Business Daily economic and financial newspaper

Figure 4.1 Agricultural Extension System in Hungary



Source Székely (2011), Fieldsend and Székely (2012)

Participants of full-cost (not subsidised) consultancy are (Székely and Halász, 2010; Székely, 2011):

- Agricultural chambers, farmer's and producer's associations, who give information, advice for fee-paying members;
- Non-registered proposal writers, business and professional organisations who provide their clients with their service for a determined compensation;
- Advisers of input manufacturers and distributors who provide consultancy, besides commercial activity. Reacting to the market competition these advisers (product managers/regional representatives) accomplish not only sales but advising, as well, which is of professional and business type and for which the customer do not have to pay a separate fee;
- Consultancy performed by registered consultants outside the MSZR system without a demand for subsidy.

Table 4.1 History of subsidised agricultural extension

	1990-2005	2005-2006	2007-2009	2009-től
Number of consultants/advisers	557 agricultural adviser	650 agricultural adviser, 890 NVT consultants	650 agricultural adviser, 890 NVT consultants	675 agricultural adviser
State-paid consultants	0	400 people in 7 organisations (The Federation of Technical and Scientific Societies – MTESZ; Association of Transdanubian Agricultural Consultants – DMSZSZ; National Federation of Agricultural Co-operatives and Producers – MOSZ; Hungarian Chamber of Agriculture – MAK; National Association of Hungarian Farmers Societies and Co-operatives – MAGOSZ; Federation of Bioculture Associations – BESZ; Hungarian Chamber of Plant Protection Professionals and Doctors of Plant Medicine – MNMNK)	202 customer advisers of Hungarian Chamber of Agriculture	
Sources	National	NVT (European)	ÚMVP (European)	
The sum paid for consultants employed by the state	0 HUF	1,5 billion HUF/year	2,427 billion HUF/year	
Financial support (subsidy)	2 billion HUF/year	0 HUF	In 2007 1 billion HUF; 2008-2010 0,5 billion HUF/year	
Subsidised activities	- Indirect subsidy of advisers contracts - Group consultancy - Subsidy to promote publications and programmes - Programmes representing the firms - Trainings which give qualification - Trainings which do not give qualification - Farm apprentice programme	Giving information for the potential costumers on the current subsidies of NVT, on the conditions, title conditions, deadline and way of proposals	- Indirect subsidy of advisers contracts - Trainings which give qualification - Trainings which do not give qualification - Compulsory trainings	
Legal background (laws)	95/1990 FVM decree (consultants registry)	95/1990 FVM decree (consultants registry), 65/2005 FVM decree (NVT registry)	52/2007 FVM decree (subsidy for advisory contracts), 73/2007 FVM decree (advisory system), 90/2009. FVM decree (authorization of the agri-consultancy), 39/2008 FVM decree (ÚMVP trainings)	

Source Mezőszentgyörgyi, 2011

Defining the concept of advising we have mentioned the following participant of the agricultural extension: Farm Advisory System (MSZR). The subsidised advisory system was

formed after the political changes, at the beginning of the 1990s. The aim was to establish a system financed by both the producers and the state which follows the farmers' demands. Table 4.1 gives a short survey on the history of subsidised agricultural extension in Hungary, from the 1990s up today.

The MSZR corresponds to the Farm Advisory System (FAS) which can be subsidised from the European Agricultural Fund for Rural Development (EAFRD) which has to be operated by each member state from 2007. In the period between 2007 and 2013 No 1782/2003 Council Regulation gives the basis of the advising services subsidised from EAFRD sources. In the period determined by ÚMVP the system of institutions which operates the advising service subsidised by the state (MSZR) is circumscribed by the 73/2007 (27 of July) FVM decree.

Tasks of the Farm Advisory System are performed by different organisations which are positioned on each other (National Coordination Centre of Advisory Centres, Regional Advisory Centres, Territorial Advisory Centres and the National Advisory Committee). The farm advisory system is managed by the minister of rural development as the managing authority (Table 4.2).

Table 4.2 Structure and tasks of the MSZR

Task (short)	Organisation	Number of person/unit
Management	VM (minister)	1 person
Supervision and assistance (regulated by 73/2007 FVM decree)	VM NAKVI, as National Coordination Centre of Advisory Centres	5 person
Consultant training, information service for consultants (regulated by 73/2007 FVM decree)	Regional Advisory Centres (RSZKs)	7 unit
Subsidised advisory contracts with the farmers according to the 52/2007 FVM decree (regulated by 73/2007 FVM decree)	Territorial Advisory Centres (TSZKs)	80 unit
Service for the farmers (regulated by 90/2009 FVM decree)	Consultant, adviser	about 700 person

Source: Mezőszentgyörgyi, 2011

Within the MSZR it is the National Advisory Committee (OSZB) which is in the highest position – an interest reconciliation forum which involves the representatives of organisations inside the advisory system. The organisation was established on 7 December, 2011 thus making end of a four-year lack in the Hungarian advisory system. The OSZB is the advisory board of the minister of rural development which has the authority to give proposals, to express opinions and to co-ordinate the tasks of the national farm advisory activity. In the committee of 15 members seven persons represent the regional and territorial advisory centres; one person is delegated by each of the following institutions: the Ministry of Rural Development (VM), the Agricultural and Rural Development Agency (MVH), the National Food Chain Safety Office (NÉBIH) and the Hungarian Chamber of Agriculture. The remaining positions are occupied by farmers who employed consultancy thus assuring representation of the users' side.

Special tasks of the agricultural advising are performed by the National Agricultural Advisory, Educational and Rural Development Institute (NAKVI). As the National Coordination Centre of Advisory Centres it takes part in management, quality assurance, and co-ordinates the work of consultancy and information service.

It should be mentioned here that there are some Professional Advisory Centres, too, which have national authorities and which are established in agri-research institutions. They give assistance to solve special problems within their own specialised fields for the customer service and organisations of agricultural advising (Székely, 2011).

The Regional Advisory Centres (RSZKs) (there are seven of them, according to the number of regions in Hungary; they operate within the borders of the regions) take a prominent

part in co-ordination and task organisation. They are built on the higher education of agriculture (6 universities and 1 college). Their basic task is to give up-to-date, special information to the Territorial Advisory Centres on the next level, to assist in mediation between consultants and their clients (FVM VKSZI, 2008).

The Territorial Advisory Centres (TSZKs) take a very important part in agricultural advising since these organisations are the closest relation with the farmers. Basically, they have a double role: on one hand, they mediate between farmers and advisers; on the other hand, they provide current information for the advisers. The network of TSZKs operates with the contribution of registered consultants. The professional basis is formed by about 700 contracted consultants who are registered in 26 different fields of agriculture and rural development.

The No 90/2009 (24 of July) FVM decree which regulates the authorization of the agri-consultancy came into force on 1 September, 2009. It ordains the following conditions for the consultants:

- Qualification certified with a university/college degree, either on MSc or BSc level which is connected to the chosen specialised field; The necessary professional experience:
- at least three-year-long professional experience in the chosen specialised field obtained after graduation and five years before the date of application, or
- a certificate of consultancy obtained either in the agricultural BSc or MSc training or in a specialised consultant training and at least two-year-long professional experience performed five years before the date of the application, or
- at least three-year-long experience as a consultant assistant obtained five years before the date of the application.

The farmer enters into a service contract with the TSZK, then the TSZK concludes an agreement with the registered adviser about the actual realisation of the service (Székely, 2011). In the period between 2007 and 2013 the farmers have the right to apply for the subsidised consultancy three times. The annual subsidy of the service cannot exceed the sum of 700 euro in HUF, or for the full period of ÚMVP the amount of 1500 euro in HUF per customer. Moreover, the amount of subsidy cannot exceed 80% of the total expenditure charged to consultancy services per customer (Füsi, 2009).

Table 4.3 Results of TSZKs on the basis of positive contracts

Denomination	2007	2008	2009	2010	2011*
Number of TSZK	84	83	82	80	80
Number of contracts	9 193	3 362	4 081	2 418	2 553
The sum of the subsidy, HUF	952 199 686	427 048 644	541 117 301	333 220 327	367 441 102
Net contracted sum, HUF	1 176 370 291	506 040 650	634 179 788	389 085 771	425 298 705
Min. contracted sum, HUF	25 000	25 000	42 000	25 000	63 400
Max. contracted sum, HUF	650 000	1 000 000	1 500 000	1 788 500	950 000
Average contracted sum, HUF	127 964	150 832	155 474	160 912	322 950

**preliminary data*

Source: Mezőszentgyörgyi, 2011

Table 4.3 summarises the important data of the service contracts provided with subsidising resolution which the farmers entered into with TSZKs between 2007 and 2011. It can be clearly seen that the number of contracts significantly decreased after the first two years. This disadvantageous tendency, as Székely and Halász (2010) pointed out, can be explained with the slowness of the procedures and with the lengthy delays in payments. It can be said that within

the given period 16 015 farmers applied for the subsidised consultancy service in the framework of 21 607 contracts through the TSZKs. The total sum of the contracts was 3 130 975 205 HUF and the subsidy which the farmers applied for was 2 621 027 060 HUF.

In 2011 the most frequently claimed services were the following according to the fields of specialization (Mezőszentgyörgyi, 2011):

- Arable farming (Natural conservation 23.1 (cross compliance 1. and 5. requirements); Soil and water protection 23.2 (cross compliance 2., 3. and 4. requirements); Plant protection 23.4 (cross compliance 9. requirement); good agricultural and environmental condition, good farming practice 23.7; Arable farming – work security; Assistance in keeping field/parcel register (with complex analysis), Advising on keeping farm management diary; Making nutrient management plan);
- Animal husbandry (Animal health protection 23.6 (cross compliance 12., 13., 14. and 15, requirements); Animal husbandry- work security);
- Horticulture (Growing of vegetables, fruits, grapes, ornamentals, herbs) (Horticulture (Growing of vegetables, fruits, grapes, ornamentals, herbs)- work security);
- Farm management (General service of giving information about agrarian regulations, knowledge on strategy, current subjects, new laws in the subjects chosen by the farmer; Applications and tenders);
- Preparing the direct payment form/request (in connection with arable farming, animal husbandry and horticulture).

4.3 EXPERIENCES ON THE EXTENSION SYSTEM

Turning back to what has been written in the introduction, it is important to emphasise again that information and knowledge take prominent parts in the maintenance of the effective operation of farmers, in the improvement of their adaptability to a higher level. The essence of consultancy comes from this fact: to help farmers gain adaptable and relevant knowledge and information. The efficient and effective agricultural extension system has a significant role in this process of giving knowledge and information.

It is obviously necessary to eliminate mistakes, failures and to protect the strong points in the system in order to help consultancy fulfil this above-mentioned role, in relation to the demand and necessity to be able to adapt to the changing environmental conditions. We are intending to summarise the most important experiences about the operation of the Hungarian extension system.

The president of the National Advisory Committee (OSZB) said in an interview made in September 2011 (see Szeredi, 2011) that today's fragmented, many-pillared system is futile, it gives mostly administrative assistance to the farmer. The biggest problem of the advisory system has been exactly this state of fragmentation for years: different advisory organisations work beside each other, interlapping with each other, with different professional messages. In regional level the bigger universities of agriculture are diminished in this system lacking both the task and the sources. Although the Territorial Advisory Centres carry out consultancy, the farmers have started to abandon their advising services because of the slow procedures, the lengthy delays in payments and the hiccups in the administrations. Advisory work of chambers is available for a wider range of farmers due to their ample resources but lacking the suitable professional knowledge. One of the elements of the system owns knowledge, the other the infrastructure and the third the financial resources.

The previous experiences are supported and completed with a number of interesting and valuable pieces of information by the analysis of the Research Institute of Agricultural Economics published in 2010 (see Székely and Halász, 2010). It analysed the operation of the

system on the basis of documentary review and empirical examinations (interview and survey) the summary of which can be seen in the following SWOT matrix (Table 4.4).

Table 4.4 The SWOT matrix of Hungarian agricultural extension

Strengths	Weaknesses
- Territorially expanded, functioning institutional and informatical background. - The free consultancy is available by a significant percentage (80%) of the farmers. - Farmers' intention to ask for help is gradually (moderately) improving. - Institution of trainings and education, research centres mean a reliable professional basis for both farmers and consultants. - The sharpening competition on market has a stimulating effect on both sides.	- The institutional network of both free and commercial extension is complicated, difficult to overview; Their tasks often overlap. - There is no task-specific co-ordination in the activity of service-providers, there are too many participants; Co-operation is either formal or lacked. - Farmers' inclination to ask for help is still low in spite of the increasing tendency. - The number of application is decreasing, so is the demand for subsidy of those who claim the service of registered consultants. - Professional competence of farmers who are the potential clients of agricultural extension is low. - Trainings of advisers is not profession-specific enough, sometimes it is of low level, and it is not about „the real life". - There is no common interest which could be measured with the production results. - Most of the consultants do this work as a complementary activity. - Evaluation of the consultants' work, checking of incompatibility are not solved (lack of resources). - There is no dissemination of the positive examples.
Opportunities	**Threats**
- The task-based free and full-cost consultancy built up on each other can improve the efficiency of the system. - The market of full-cost consultancy can significantly be amplified with the customers of the free consultancy. - The lower competence of the user side strengthens the role of consultancy and extension. - Professional trainings of the consultants can contribute to improve the trust in them- on behalf of the farmers. - The demand for the service can be increased with a wider range of advising methods. - Dissemination of positive experiences can raise the intention to ask for assistance. - The problem of incompatibility can be diminished with an annual statement.	- Users lose their trust. - Demands for the service continue to lessen. - Decrease in demand diminishes the low competence of users. - The farmers' chances in the market competition are worsening. - Exploitation of the possibilities of closing up declines. - Loss of EU-sources. - Increase in corrupt practice to avoid paying tax. (Consultancy services are performed without written contracts avoiding the official process.)

Source: Székely and Halász, 2010

It can be concluded that requirements of an efficient extension system are fulfilled only partially in Hungary. The present structure and operation need intervention in several fields. We agree with Székely's findings (2011) according to which it is essential to eliminate the errors in the system as soon as possible in order to assure the efficient and effective operation of consultancy. Thus it is very urgent to determine precisely the range of free and commercial services, to diminish the number of service-providers, to eliminate the concurrency between service-providers within consultancy, to strengthen the relation between the participants of the system and finally, to provide services which better meet the users' demands.

4.4 LIST OF ACRONYMS

- ***FVM*** – Földművelésügyi és Vidékfejlesztési Minisztérium (Ministry of Agriculture and Rural Development); currently VM
- ***GISZ*** – Gazdálkodói Információs Szolgálat (Farm Information Services)
- ***MSZR*** – Mezőgazdasági Szaktanácsadó Rendszer – (Farm Advisory System)
- ***MVH*** – Mezőgazdasági és Vidékfejlesztési Hivatal (Agricultural and Rural Development Agency)
- ***NAKVI*** – Nemzeti Agrárszaktanácsadási, Képzési és Vidékfejlesztési Intézet (National Agricultural Advisory, Educational and Rural Development Institute)
- ***NÉBIH*** – Nemzeti Élelmiszerlánc-biztonsági Hivatal (National Food Chain Safety Office)
- ***NVT*** – Nemzeti Vidékfejlesztési Terv az Európai Mezőgazdasági Orientációs és Garancia Alap (EMOGA) Garanciarészleg Intézkedéseire c. dokumentum 2004-2006 közötti időszakra szóló program (National Rural Development Plan for the EAGGF Guarantee Section Measures 2004-2006)
- ***OSZB*** – Országos Szaktanácsadási Bizottság (National Advisory Committee)
- ***OSZK*** – Országos Szaktanácsadási Központ (National Coordination Centre of Advisory Centres)
- ***RSZK*** – Regionális Szaktanácsadási Központ (Regional Advisory Centre)
- ***TSZK*** – Területi Szaktanácsadási Központ (Territorial Advisory Centre)
- ***ÚMVP*** – Új Magyarország Vidékfejlesztési Program (New Hungary Rural Development Programme; Magyarország 2007-2013 közötti vidékfejlesztési programja – rural evelopment program of Hungary for the period 2007-2013)
- ***VM*** – Vidékfejlesztési Minisztérium (Ministry of Rural Development)

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5 RURAL SOCIOLOGY

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5.1 THE DEVELOPMENT OF THE SUBJECT

The definition of the dictionary entry says that: "Rural sociology has been powerfully influenced by antiurbanism, producing a stereotypical view of rural society as stable and harmonious."(Marshall, 1998, s. 574) Ferdinand Tönnies in his famous work about social associations, Gemeinschaft and Gessellschaft, claimed that specific social characteristics were typical for villages rather than for towns. Among others, for example Robert Redfield adopted a more simplistic view which introduced rural or folk societies as being inherently characterized by traditional and close-knit family social networks, consensus rather than conflict and ascribed not achieved statuses. These ideas started to develop the area of empiricist rural sociology which consisted of community studies, exploring the ideal-typical rural way of life and its possible erosion. After 1945, influenced by international bodies such as the United Nations Food and Agriculture Organization, this approach spread beyond America but still remaining its main concern of rural development in advanced industrial countries. "Major advances in the analysis of Third World rural change came more from the sociology of development and peasant studies. In state socialist countries, rural sociology was also relentlessly empiricist, although here it served policies of rural transformation rather than preservation" (Marshall, 1998, s. 574). From the 1960s the ideas about a rural life showed that the countryside is as much characterized by allegedly urban as by supposedly rural forms of social association, conflict and cohesion, as Oscar Lewis, Ray Pahl and other sociologists showed. From the 1970s a new sociology of agriculture occurred alongside a transformation of urban sociology. This paradigmatic shift, based on the nature of capitalist agricultural production and its social consequences for rural population and the wider society, opened up new areas of research, for example regarding the nature of land as a factor of production, the role of differing patters of land-ownership or the study of rural power structures and social stratification. Later studies explored historically and geographically the nature of agricultural production and its social consequences. Other research topics included agriculture as a complex process of commodity production, globally organized food regimes, the role of agribusiness, its relation to state policies and use of new technologies, agricultural credit systems or environmental issues and the non-agricultural rural economy in the 1980s. The influence of peasant studies and the sociology of development were influential.

The team of current authors (Van Der Ploeg, 2000) explains a new emerging model of rural development both in practice and policy. They conclude that a fundamental shift is taking place where the modernization paradigm that once dominated policy, practice and theory, is being replaced by a new rural development paradigm. "Rural development is analyzed as a multi-level, multi-actor and multi-facetted process rooted in historical traditions that represents at all levels a fundamental rupture with the modernization project. The range of new quality products, services and forms of cost reduction that together comprise rural development are understood as a response by farm families to both the eroding economic base of their enterprises and to the new needs and expectations European society has of the rural areas. Rural development therefore is largely an autonomous, self-driven process and in its further unfolding agriculture will continue to play a key role, although it is a role that may well change." (Van Der Ploeg et al., 2000).

5.2 POLARISATION PROCESSES IN THE 21ST CENTURY

As Hampl (2007) describes, the social transformation in post-totalitarian countries is characterised by extraordinarily dynamic differentiation tendencies which can be even contradictory, resulting in an internal social and territorial polarisation. „These polarisation processes are, on the one hand, a reaction to the equalising tendencies in communist countries, and, on the other hand, are the result of the need for qualitative changes to social structures. One such structure is the regional organisation of society, which owing to the heterogeneous nature of the conditions it exists has very specific features. Essentially it is the environmental organisation of society, where the effects of social and natural factors are combined. Consequently, there is typically a higher level of territorial inequality in the distribution of economic activities than in social distribution, and, by contrast, less variability of geographical differentiation than social differentiation. These features are demonstrated in an empirical analysis of the current development in the Czech Republic, wherein a distinction is made between two ways of assessing regional distribution. First, there is the assessment of differentiation of the territorial intensity of economic activities (economic aggregate/km2). Second, there is the assessment of relative economic and social development (economic aggregate/inhabitant). Despite the differences in the level and variability of the two types of regional differentiation, there are similar trends in their developments, heading towards greater inequalities.“ (Hampl, 2007)

5.3 DEVELOPMENT OF CIVIL SOCIETY IN RURAL AREAS

The level of civil society in the regions of the Czech Republic was explored by Stachová. (2005) Her research is primarily based on a qualitative case study of two selected regions (administrative regions), which represent as different as possible types in terms of the state of civil society, using interviews with representatives of the non-profit sector. The case studies focus primarily on the state and development of the non-profit sector, which is what the author conceives as the key, constitutive element of Czech civil society. One of the aims is therefore to describe in detail the situation and the development of the non-profit sector in selected regions and to identify the socio-cultural and the institutional factors that may influence the level of civic participation. She looks mainly at what kind of institutional features can contribute to the shape of civil society, especially influence how local and regional governments affect the state and development of civil society in the region. Stachová (2005) concludes that institutional and the socio-cultural perspectives can both be validly applied as both have an impact on the development of civil society. Civic participation has its roots in the history and culture of the region and influences regional and local institutions, but these institutions in turn also have a reciprocal effect on civic participation.

The topic of civil society was explored also by Vajdova (2008) in her sociological study. She analyzed two factors that have a significant impact on regional development. One is the level of development of civil society in the region and the other is the nature of the social network of actors in local development. The region that forms the focus of this study is Orlicko in the District of Ústí nad Orlicí in the Pardubice Region, and specifically the area encompassed under the Association of Municipalities of Orlicko on the Polish border. Indicators of political and civic participation and indicators of partnership between the public, private, and nonprofit sectors were examined on the basis of national and regional statistics, databases and surveys conducted by the Public Opinion Research Centre. The social network of the most important actors in local development was approximated on the basis of 35 institutions from the public, private, and non-profit sectors. Data on the network were obtained through a specialised questionnaire survey of representatives of these institutions. As Vajdova (2008) states, the quantitative characteristics of this network, such as its density, the centrality or centralisation of

the network, do not exhibit any extreme values that would suggest the existence of any irregular conditions for cooperation between these three sectors. However, the public sector is clearly the driving force of local development.

5.4 MEASURING OF DEVELOPMENTAL POTENTIAL

The importance of survival strategies in rural communities is describing in his contribution Meert (2000). As he explains, although Belgian poverty is mainly concentrated in urban regions, the profound restructuring of labour and food markets, the dismantling of the welfare state and the growth of new types of households are also producing poverty and social exclusion in rural areas. He stresses that not every deprived rural household should be regarded as excluded from society. By developing survival strategies, households attempt to escape from social marginalization. To understand these responses, a typology of survival strategies is constructed, based on Polanyi's spheres of economic integration (market exchange, redistribution and reciprocity). These survival strategies, including agricultural and non-agricultural activities, are analysed in relation to the Hageland, a peripheral rural area in Flanders.

Bernard (2011) contributes with his article to the discussion of the possibilities and limits of endogenous developmental potential in small rural communities in the Czech Republic. He summarises some of the theoretical assumptions of developmental analyses of small rural communities, its development factors, and the current research focus. As he states, for many rural inhabitants, the local community is the main space of their everyday activity. Their quality of life is influenced by local development, stagnation or decline of the community's functions or changes in its socioeconomic and cultural characteristics. It is important to say that searching for relevant developmental potential and measuring the impact of such potential are complicated tasks. One reason is the lack of data for firm comparative analyses. Bernard (2011) aims to explore the internal structure of developmental potential and statistically measures its impact. He presents a model of local development consisting of structural and locality-based factors, endogenous developmental potential, and developmental indicators. This model is tested on a set of statistical data for individual small rural communities in the Czech Republic using factor analysis and multilevel modelling, where the regional data are used as independent variables on the second level. His empirical results confirm that it is possible to define several distinct types of endogenous developmental potential and to identify their impact on development, which is rather weak. The relatively high intra-class correlation coefficients of some community characteristics indicate the existence of specific regional patterns of community capacity and development in small rural communities in the Czech Republic.

5.5 INNER PERIPHERIES

Social-spatial organisation of society is considered as one of many dimensions of social cohesion. Heterogenious space division within the Czech Republic brings not only well developing and dynamic spaces but also stagnating parts with limited possibilities for developement. These socially and geographically disadvantaged areas are called inner peripheries.

Inner peripheries are described as areas where the residents have difficulties taking part in common everyday civic activities. They might be also limited by the lack of jobs, weak public transport, (un)availability of medical care, education and the social services accompanied by generally underdeveloped infrastructure, etc. The result of this situation may lead to social exclusion and marginalization of people living in the area. The fact that people are living under these circumstances is opening wider issue which is weakened social cohesion. It is not only a

problem of small local setting but also probably more serious in the larger (national) unit, intended as incoherence of a peripheral areas and non-peripheral areas. This may result in the widening of a (social) gap between the center and a periphery. The inner periphery is a combination of mutually *disadvantaged position,* i.e. geographical conditions or a relatively large distance from the center, and *worsening social conditions,* both at the technical infrastructure and in coexistence of people (Musil,Müller2006 and Musil 2008). Following the given definition of inner peripheries it is important to support the makro data with everyday experience of people living in peripherial areas. The microprobes were implemented for this reason in selected inner peripheries (Abramuszkinová Pavlíková et al. 2008).

The topic of inner peripheries is not new. In 1984, prof. Jiří Musil and Terplan (National Institute for Spatial Planning) started for the first time to work on definition of the inner peripheries for the former Czechoslovakia. The primary aim the research was following the 1984 aim to define the territorial units smaller than, for example, districts or counties. Behind this approach is a belief that regional differentiation is needed to examine through the finest grid, since only that one can detect some of the less visible or specific problems and contexts. The definition of peripheral areas followed in a slightly modified form the method already used in 80´s of the 20th century when the former Czech Republic (as a part of Czechoslovakia) was divided into 916 territorial units. Due to the changes brought about by administrative consolidation of villages (70´s and 80´s of the 20th century) and later separation of municipalities (90´s of the 20th century), the construction of units has changed somewhat in its present form. The so-called "generel unit" consists of a central city and several neighboring municipalities, which together have at least basic public services (a school, a post office, etc.) while on their territory there are some official authorities (e.g. a municipality office, a registry office or a building authority). These newly identified sub-regional (generel) units, used in our study, count to number 1424.

What criteria were used to divide the sub-regional units of different types of territories, namely the inner peripheries and the non-peripheral area (specifically the metropolitan center, the regional centers and other areas)? A total of 17 indicators were used by Census 2001 (Table 5.1) and those were in addition supplemented with indicators of growth or decline in population between 1970 and 2004. For identification of the inner peripheries, 9 or more indicators were used, which moved below a certain threshold (i.e. two belonged to the lowest or highest quintiles file in one indicator). Narrower definition of the inner peripheries was strengthened by further indication of a decline in population during the period (i.e. 9 + indicators and more decrease in population from 1970 to 2004). The area was thus set in the first case (for the wider inner periphery) as 31.4% of the Czech Republic territory with population less than 980 000 (as of early 2005). In the second case (for a closer inner periphery) the area was 16.7% of the Czech Republic territory with approximately 480 000 population (as of early 2005).

Table 5.1 Indicators for inner peripheral areas

Low proportion of population aged 0 – 24 years from the total population
High proportion of the population aged over 60 years from the total population
High number of widows per 100 women aged over 60 years
High proportion of the population aged over 15 years without A-level exam[37] from the total population aged over 15 years
Low proportion of population with higher education per 100 persons aged over 25 years
Low number of jobs per 100 economically active persons living in the municipality
High proportion of unemployed from the total number of economically active population living in the municipality
High proportion of jobs in agriculture, forestry and fisheries from the total number of jobs
Low proportion of jobs in manufacturing and construction sectors from the total number of jobs
Low proportion of employers and self-employed from the total number of economically active population
Low proportion of economically active in the so-called tertiary sector from the total number of economically active population
Low proportion of permanently occupied flats in houses built between 1970 – 2001 from the total number of permanently occupied flats
High proportion of unoccupied flats in the total number of flats
High number of flats in family houses occupied temporarily or for recreation per 100 permanently occupied flats in family houses
Low proportion of permanently occupied flats with gas from the total number of permanently occupied flats
Low proportion of permanently occupied flats connected to sewerage system of the total number of permanently occupied flats
Low proportion of households with PC from the total number of households

Source: Musil J., Müller J. (2006)

The inner peripheries could be visually described particularly in the borders of regions[38]: in peripheral areas of the metropolitan areas of Prague, Ostrava or Brno and around smaller regional centers. It can be mentioned that in Bohemia regions there are more peripheral areas than in Moravia.

According to the above mentioned data we have selected specific communities for conducting three qualitative microprobes within inner peripheries. Our research was designed as a probe with the aim to open other issues or questions related to inner peripheries. The characteristics of inner peripheries in different areas may vary. They are heterogeneous and locally specific. The primary criterion for selection of the municipalities under study was peripherality as such (based on macro data as explained above) and second criterion was the availability for a field research. Last criterion was possible mutual comparability of the three selected villages. In the peripheral municipalities, which were in our main focus, the major method of semi-structured interviews with both the official representatives, and the inhabitants of the village were used. It is obvious that we used all official and private documents available for communities under study such as legal documents, chronicles, community websites, reports, books, etc.). During our field research we visited chosen localities several times which did increase our understanding and perception of everyday life in peripheral areas. Observations were important part of our research work.

[37] A-level exam, graduation is the translation of Czech term „maturita".
[38] By region we mean in Czech „kraj".

5.6 CONCLUSION

Coming back to the origins of rural sociology, it is obvious that the research agenda has significantly developed and it reflects current problems in society. It is important to use experience from empiricist rural sociology, sociology of agriculture and development or peasant studies. The shift from modernization paradigm to a new rural development paradigm has brought new topic for research. Current areas of interest include social and territorial polarisation, differentiation tendencies, the role of civil society in regions, the public sector, social networks, socio-cultural and the institutional factors and also survival strategies for excluded rural communities. Although the methodology is also under the focus, it is still quite difficult to measure development potential of rural communities as well as living conditions in inner peripheries. The data analysis based on the smallest units together with combination of qualitative and quantitative data is recommended, including multidisciplinary approach.

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6 MACRO ENVIRONMENT OF THE ORGANIC VITICULUTRE IN THE CZECH REPUBLIC

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6.1 INTRODUCTION

Organic farming is based on perfect knowledge of the needs of plants, animals and landscapes. The aim of organic farmer's effort is to produce, but in a sustainable way, which promotes diversity and sustainability of the cultural landscape. (David, 2008)

International Federation of Organic Agriculture Movement - IFOAM defines organic agriculture, including viticulture and winemaking as "a holistic production management system that promotes and enhances agroecosystem health, including biodiversity, biological cycles and soil biological activity. Preferred is practical management than the external inputs, while the whole system is adapted to local conditions. (IFOAM, [cit. 2012-04-23]).

There were 37.2 million hectares of organic agricultural land in 2011 in the world. The regions with the largest areas of organic agricultural land are Oceania (12.2 million hectares), Europe (9.3 million hectares), and Latin America (8.6 million hectares). The countries with the most organic agricultural land are Australia, Argentina, and the United States. Currently 0.9 percent of the world's agricultural land is organic. However, some countries reach far higher shares: Falkland Islands (35.7 percent), Liechtenstein (26.9 percent), and Austria (18.5 percent). There were 1.8 million producers of organic products in 2009, there was an increase by 31 percent since 2008, mainly due to a large increase of organic farming in India. (FiBL, [cit. 2012-04-23])

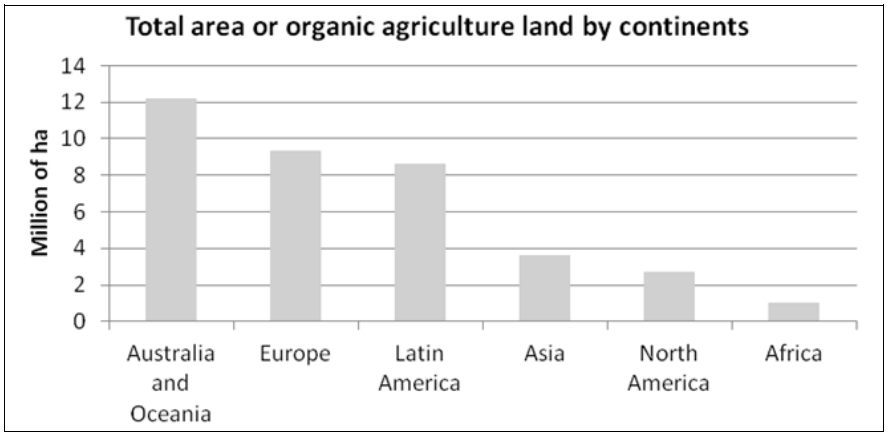
Czech Republic has lived to see the popularity of organic farming at the beginning of 21st century. It started to develop after 1989 and is becoming more and more popular. After a strong increase in organic food market in 2005-2008 occurred stagnation in recent years. The main reason for stagnation in retail turnover in 2010 was the reduction of organic food prices throughout the lower raw material prices and lower customer demand during the economic crisis. In 2011 and 2012 is expected to moderate growth in consumption. The total turnover of organic food of Czech entities in 2010 amounted to around 2.1 billion.

The *total area of agricultural land* in the CR is according to the CSO *3.55 million hectares*. Regarding the area of land cultivated in ecologically friendly manner, the total area of organically farmed area increased to a total of 482,984 hectares, representing almost 12% of the total agricultural area of the CR. The share of organic farming areas in the Czech Republic ranks among the leading countries in the world.

In the Czech Republic, 3920 organic farms dealt with organic farming and organic production by the end of 2011 (recently joined the 579 organic farms, 175 ended its activities). Over 12% of agricultural entrepreneurs in the country farmed using organic method. (HRABALOVÁ, 2010)

The number of producers of organic food is slightly increasing. At the end of 2011, there were 422 registered organic food producers, compared to the end of 2010, when there were 404 registered manufacturers. Their number rose by 4.5%. During the year 2011 began with the production 73 new organic food companies, 55 ended its activities.

Graph 6.1 Total area of organic agriculture land by continents (in million hectares)



Source own elaboration based on [21]

"Biowine" (or organic wine) belongs to the system of organic farming, where currently 450.000 hectares are cultivated – which represents 10.5 % from the total agricultural area in the Czech Republic. Czech Republic is from this point of view above the European average. It means about 3500 agricultural companies of different sizes. There exist some small eco-farms which has the area e.g. 5 hectares, or former cooperative farms or state farms with the area more than 1000 hectares on one subject. Czech Republic has the leading position in organic farming among new members of EU. (Urban, ÚKZÚZ in Gurská, 2012) The number of winegrowers which entered the organic farming has increased in the recent 2 years and it is supposed this growth will continue. The reason of this interest are vacant vineyards on the organic-wine market and the possibility to export. (Gurská, 2012)

Table 6.1

Trend in organic vineyard area in the years 2010-2015 (in hectares) in the Czech Republic							
Years	**2007**	**2008**	**2009**	**2010**	**2011**	**2013**	**2015**
Total area	245	408	645	1100	1300	1500	1700

6.2 PESTE ANALYSIS

For the purposes of examining and analyzing the macro-environment, the following classification is traditionally used: P—political and legal environment, E—economical environment, S—social environment, T—technical and technological environment, E—ecological environment. This classification of the parts of macro-environment is called PESTE (or sometimes due to the changed order of the items STEPE analysis). (Pošvář, Chládková, 2009)

6.2.1 POLITICAL AND LEGAL ENVIRONMENT

Joining the European Union in 2004 meant for Czech farmers substantial benefits. In particular, it is increase of incomes and living standards, higher purchase prices and expanding export opportunities. The entry also brought a better environment, higher standards of quality

and food safety for the entire company. An important contribution was the creation of new jobs in manufacturing. (Dvorek.eu, [cit. 2012-04-23])

The year 2010 has been a year of consolidation in the field of standards and regulations. The new EU regulation on organic production has been implemented. (WILLER, KILCHER, 2011)

6.2.1.1 LEGISLATION

Act No. 256/2011 Coll. amending Act No. 321/2004 Coll. viticulture and winemaking and amending some related Acts. (eAgri.cz, [cit. 2012-04-23])

On August 30, 2011 was published in the Official statue book Act No. 256/2011 Coll. amending Act No. 321/2004 Coll. on viticulture and winemaking. This amendment changes the system of payment to the Wine Fund. Act is the implementation of the new Commission Regulation and Council Regulation (EC) on viticulture and winemaking, and makes adjustments in the protection of designations of origin and geographical indications.

The draft amendment to Act No. 321/2004 Coll. based on the options that allow the Czech Republic, EU rules on the requirements of consultation and supervisory bodies and professional viticulture and wine to the public to amend the law.

The aim of the Act No. 452/2001 Coll. is a national legal environment that allows login to the Community protection of designations of origin or geographical indications, and procedure that is prescribed by EU regulations. In addition to protecting the legitimate interests of entities that have their headquarters or domicile in the Czech Republic.

Act No. 834/2007 on organic farming

The Czech law on organic farming in 2000 and EC Council Regulation on organic agriculture (834/2007) in its present form does not provide rules for the production of beverages from grapes and do not allow the Czech organic wines use the name "organic wine" and the term organic, eco or organic. If the vineyard is managed according to the principles of organic farming, wine labels can only carry the name "wine made from organically grown grapes."

The labeling of organic wine

Currently, the EU organic label, organic label of the Czech Republic (the so-called bio-zebra) and expression of organic, eco or bio can be used only on organic products and organic food produced in accordance with the rules of Council Regulation 834/2007 and Commission Regulation 889/2008, and in accordance with Act 242/2000 Coll. on organic farming. Wine cellar technology is not contained in these regulations, and therefore the wine cannot be marked in this way. At this time it is possible to specify on the label expression “wine made from organically grown grapes” and only if the vineyard, from which grapes came, is already certified under organic farming, which wine producers demonstrate by a valid certificate of inspection organizations for organic farming. Ministry of Agriculture will try as soon as possible to amend Act No. 242 / 2000 Coll. among other things in it to ensure the possibility of using bio-zebra on these labels. (Bioinstitut, [cit. 2012-04-23])

But from harvest year 2012 are planned changes organic wine growers will be allowed to use the term “organic wine” on their labels. The labels must also show the EU-organic-logo and the code number of their certifier, and must respect other wine labelling rules.

The new rules create a list of procedures and materials for the production of organic wine in the existing Regulation (EC) 606/2009. For example, the ban on the use of sorbic acid and removal of sulfur by selected physical methods. The content of sulphites must not exceed 100 mg / l for red wines and 150 mg / l in rosé and white wines with residual sugar value less than 2 g / l, for all other wines the maximum carbon dioxide must be reduced by 30 mg / l.

In addition to these new rules still apply the general procedures laid down in Regulation (EC) 606/2009, and the obligation to produce organic wines only from organically grown grapes in accordance with Regulation (EC) 834/2007. (EUROPA.EU, [cit. 2012-04-23])

6.2.1.2 CUSTOM POLICY

The customs union was one of the first successes in the history of the European Union. Thanks to the Customs Union the tariffs on the borders between EU Member States were abolished and it established a uniform system of import taxes. For imports from countries that are not a part of the EC, the Common Customs Tariff holds. Because of the absence of border controls and customs procedures between EU member states there was an obligation to register tax and statistics data anchored. Failure to do so is penalized. INTRASTAT deals with statistics of internal trade system.

The opening of the wine market and numerous legislative measures has caused the cheap export of wine from abroad and high pressure on the domestic wine. Wine grapes are imported at low purchase prices.

Since May 1, 2008 the Asian market has also opened for the Czech wine exporters by duty abolishing, which had amounted to 40% on imports into Hong Kong. This opened the possibility of Czech producers to export in mature consumer market. (Ministerstvo průmyslu a obchodu, [cit. 2012-04-23])

6.2.1.3 GRANT POLICY

Support flowing to viticulture and winemaking sector can draw on

- *Funds of the Czech Republic*, where the Grant Policy Principles set, laying down the conditions for providing grants under Act No. 252/1997 Coll. on agriculture.
- *Wine Fund resources* in the sense of marketing. Wine Fund promotes the sales, protection of products and labeling wines by geographical origin, informs the public about viticulture and winemaking, and other important facts related to viticulture and viniculture, promotes conservation and development of viticulture and winemaking as an important part of European cultural heritage.
- *EU funds*

State support in the organic farming sector

In 2010, a total number of 67 applications submitted for payment of subsidies (support rate was set at 22 315.97 CZK / ha). The amount of aid paid for 2010 for all 67 applications amounted to CZK 14,473,022 to the actual acreage 649 ha. (Mze, 2011)

There are several reasons of organically grown grapes development. Besides the generally favorable conditions, such as higher subsidies for area, there is also and point benefit for organic growers in competition for the drawdown of the modernization of the cellar technology.

6.2.1.4 TAX POLICY

Subject to tax on wine and intermediate products for the purposes of the Excise Tax Act, are wines, fermented beverages and intermediate products containing more than 1.2% alcohol by volume but not exceeding 22% vol.

The basis of the excise duty on wine and intermediate products is the amount of wine and intermediate products, expressed in hectoliters. In terms of determining the rate of excise duty on wine and intermediate products should be special attention paid to the correct

determination of the tax in accordance with the provisions of § 93 paragraph 2, 3 and 4 of the Excise Tax Act, which distinguishes:

a) sparkling wine (excise duty 2340, - CZK / hl),
b) still wines (excise duty 0, - CZK / hl) and
c) intermediate (rate of excise duty 2340, - CZK / hl).

Transportation of still wine is an exemption in the tax territory of the Czech Republic and the responsibilities of small wine producers.

Still wine is the only alcoholic beverage, from which is the excise duty not paid in the Czech Republic. However, in January 2012 the Minister of finance Miroslav Kalousek said in the media that for the years 2013 and 2014, he will suggest the mix of tax measures, among which will be the wine tax that could be set at 10 crowns per liter. According to Kalousek should be balanced the inequality in the tax system - the excise duty is paid on sparkling wines, but on the so-called silent wine not. This measure, however, could jeopardize the whole wine sector in the Czech Republic. In no country in the European Union is excise tax on silent wine. Exemption from taxation of wine is one of the ways to support domestic production and viticulture. Czech winemakers, who face the competition from foreign wine makers, would be disadvantaged. (Thermogroup, [cit. 2012-04-23])

6.2.2 ECONOMIC ENVIRONMENT

The economic environment of each country can be judged by the macroeconomic data that are regularly published by the Czech Statistical Office (CSO). These indicators include:

- gross domestic product (GDP)
- unemployment
- rate of inflation
- average gross wage
- or foreign trade

The development of these basic indicators for the Czech Republic is shown in the following table 6.2.

Table 6.2 Economic indicators development in Czech Republic

	GDP per capita [CZK/capita/year]	GDP [%]	Unemployment rate [%]	Inflation rate [%]	The average monthly wage [CZK/month]
2000	220 949	4,2	8,8	3,9	13 219
2001	239 487	3,1	8,1	4,7	14 378
2002	251 700	2,1	7,3	1,8	15 524
2003	263 497	3,8	7,8	0,1	16 430
2004	286 979	4,7	8,3	2,8	17 466
2005	304 478	6,8	7,9	1,9	18 344
2006	326 553	7,0	7,1	2,5	19 546
2007	354 808	5,7	5,3	2,8	20 957
2008	368 986	3,1	4,4	6,3	22 592
2009	356 405	-4,7	6,7	1,0	23 344
2010	358 957	2,7	7,3	1,5	23 797
2011	362 949	1,7	-	1.9	24 319

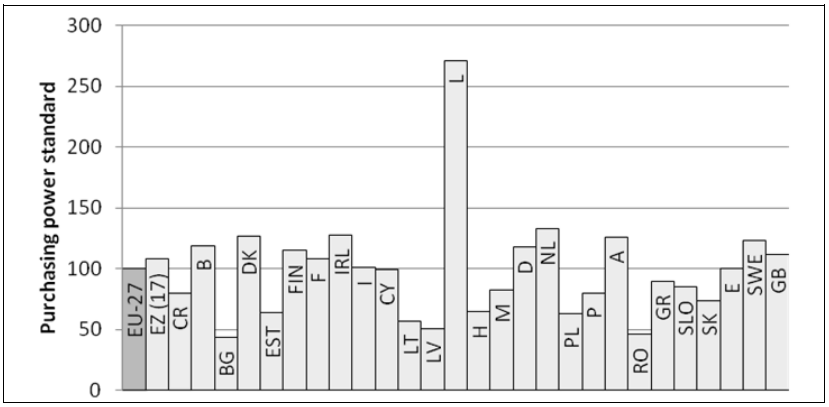
Source**:** CSO

6.2.2.1 GDP

The first indicator shown in the table 6.2 gives a gross domestic product (GDP) per capita. This indicator describes the annual increase of wealth. Change in GDP is the accelerated growth of wealth of the Czech Republic. This indicator is used for comparison of the maturity of the country, but in the wine industry it has quite another important meaning. The same indicator is used by the European Union when distributing contributions from the European funds. The distribution is such that countries where GDP per capita is higher, obtain lower contributions from European funds, and vice versa.

In the following graph 6.2 are presented results from 2010 concerning GDP per capita in purchasing power standard development. The data are expressed in relation to EU-27 average which is equal to 100. Basic figures are expressed in PPS, i.e. a common currency that eliminates the differences in price levels between countries allowing meaningful volume comparisons of GDP between countries.

Graph 6.2 GDP per capita in PPS EU27=100

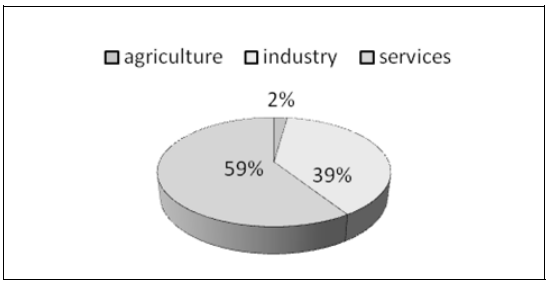


Source: Eurostat

Czech Republic has achieved compared with the average value calculated for the entire European Union, lower values - only the 80 points. The lowest values were reached in Bulgaria and Romania. On the other hand, very high level was reached in Luxembourg – 271 points, this means that the GDP of Luxembourg is 271 times higher than the EU average.

Although viticulture is not the pillar of agriculture in the Czech Republic, in some areas has paramount importance. The South Moravia region is involved in viticulture and winemaking from 1/5 of total agricultural production in the region.

Graph 6.3 GDP composition by sector in Czech Republic 2011



Source CIA

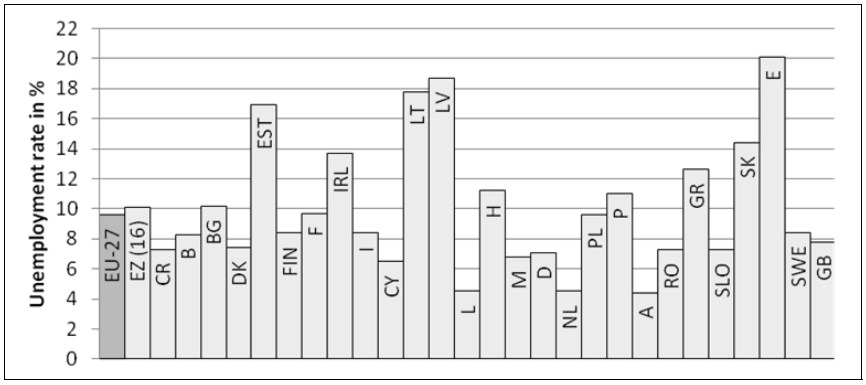
In the graph 6.3 is clearly visible that Czech Republic is from the largest proportion focused on services which represents 59% of GDP. The proportion of industry on the composition is also significant while agriculture forms only 2% of the whole GDP.

6.2.2.2 UNEMPLOYMENT (AGROWEB, [CIT. 2012-04-23])

Unemployment is one of the key indicators of the economy. Unemployment is measured by unemployment rate, which is generally the ratio of unemployed people who want to find a job and all economically active people. The unemployment rate strongly depends on the performance of the economy. When the economy is growing, unemployment is down, when the economy slows or its performance is declining, unemployment is rising.

In 2010, the agrarian sector went through continuous dynamic reduction of employment. The number of farm workers dropped by five percent and the unemployment rate in the countryside was moving above the national average at 10.2 percent. The problem of the sector is the age structure of employees, where employed are usually the older ones.

Graph 6.4: General rate of unemployment in EU 2010



Source: Eurostat

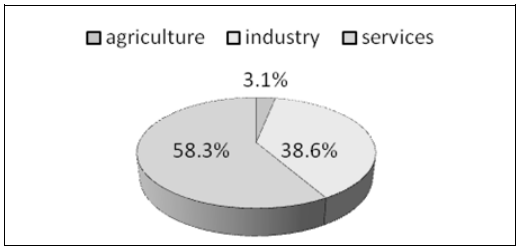
The general unemployment rate in the last decade reached the lowest level in 2008, only 4.4%. In 2010, it reached 7.3%, which is a long-term average.

Compared with the average unemployment rate of EU Member States can be said that the unemployment rate in the Czech Republic is lower. From looking at the graph 6.4 is clear

that the unemployment rate varies widely. In Spain reached values of 20.1% in 2010, in Austria, however, the unemployment rate is only 4.4%.

Employment is in a high extent influenced by the seasons in the wine sector. Visible part of the employment is seasonal work, so annual outflow of employees can be observed.

Graph 6.5 Labor force by occupation in Czech Republic



Source: CIA

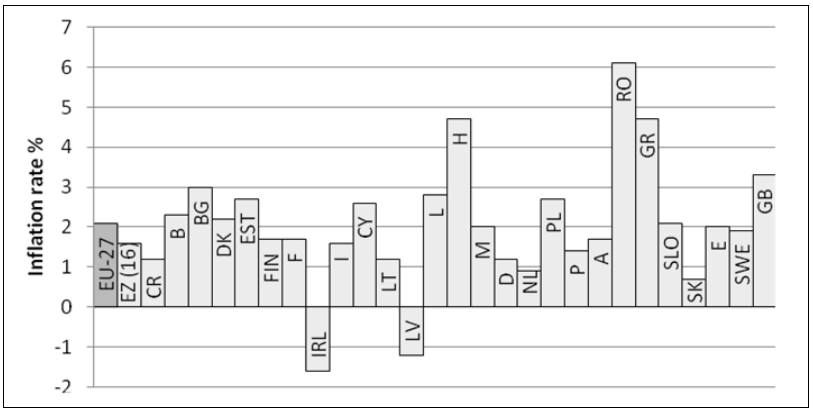
As is seen from the graph 6.5 the highest proportion of the labor force is employed in services sector – 58.3%. The second largest share is accounted for industry sector with 38.6%. Agriculture sector form only 3.1% of the total labor force in the Czech Republic.

6.2.2.3 INFLATION

The inflation rate is defined as the change in general price levels. The inflation occurs when the overall price level increase. In the past the Czech Republic belonged among the countries with the lowest inflation rate in the European Union. In 2003 inflation rate reached only 0.1%. This trend was interrupted in 2008 when there was a significant rise in energy and food prices, which resulted in bias and multiplication of inflation. In 2009 and 2010 were return of inflation to low levels and the values were around 1.0%.

In 2011, the rate of inflation was in the Czech Republic higher than in the previous two years and reached level 1.9%. This is not just a trend in the Czech Republic, but especially in the countries of the Eurozone. The largest impact on the price increases in the euro area had transport and housing. “Behind the growth of consumer prices in the euro area can be seen particularly rising energy prices and the rise of oil prices which has risen in the last quarter by 10 percent,” (Aktuálně.cz, [cit. 2012-04-23]) Robin Koklar, an analyst at Fio Bank, commented the data.

Graph 6.6 Inflation rate in EU 2010



Source: Eurostat

From the graph is clear that in comparison with other countries had the Czech Republic inflation rate below the European average in 2010. It is also necessary to say that in almost all countries, the estimated inflation rate in 2011 is higher than in 2010, but the exact values have not been published yet.

Ireland and Lithuania came into the problem of deflation. Although it is at first glance a nice message for the citizens, because they can buy more goods and services with still same wage, for the domestic economy is an unpleasant phenomenon crippling the financial markets.

- Creditors have problems with paying their debts, which are higher due to deflation.
- Citizens save less because it is not so profitable.
- The flow of credit is limited.

In addition, deflation leads to higher unemployment (the price of labor is expensive). (Finance.cz, [cit. 2012-04-23])

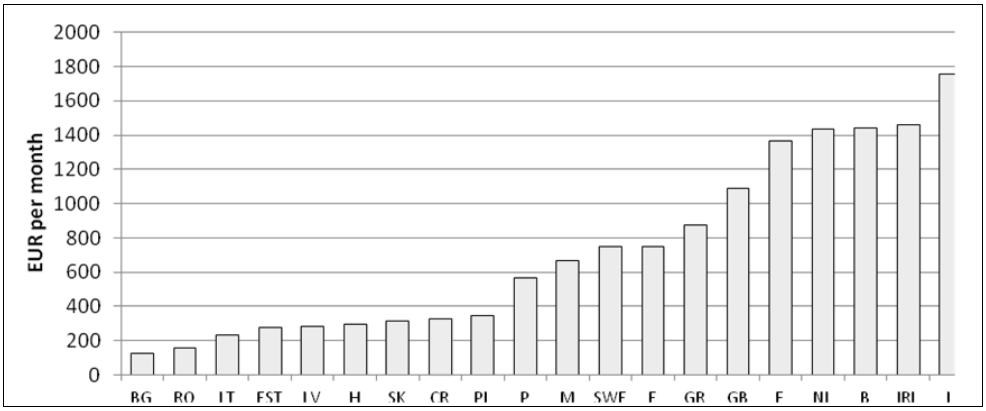
6.2.2.4 AVERAGE GROSS WAGE (E15.CZ, [CIT. 2012-04-23])

Annual increase of gross nominal wages over the last decade is evident. For the citizens is more meaningful value of the real wages, i.e. nominal wages minus inflation. The development is due to the development of the overall economic environment. Wage differences in various sectors continue to deepen. The main contribution to growth of average wages to the business sector, where wage development is very smooth and is mainly affected by the economic result of the business environment. Developments in nonbusiness sphere are rather abrupt. For a long term the highest average salary is achieved in financial sector, the lowest wages are earned in the accommodation and hospitality sphere.

6.2.2.5 MINIMUM WAGE IN EU COUNTRIES

As is visible from the graph 6.7, the minimum wage table could be divided into three groups. Czech Republic belongs in the first group where the minimum wage is very low compared to other countries and with the amount 329 Euro per month. Greece is worth noting because despite the current bad situation it has a very high minimum wage. But in this case, negotiations are continuing and very probably the minimum wage will be reduced.

Graph 7 Minimum wage in EU in July 2011



Source: Eurostat

6.2.2.6 FOREIGN TRADE

In 2011 compared with the previous year exports grew by 13.2% and imports by 10.9%. The annual surplus reached CZK 191.4 billion, which was by CZK 70.2 billion higher than in 2010.

The entire volume of exports of CR in 2011 was 2.268 trillion CZK (about 75-80% of GDP). Imports were estimated at 2.675 trillion CZK. Exports exceed imports by these 191 trillion CZK. These data are calculated according to classical methodology based on the monitoring of goods crossing the border. (Finance.cz, [cit. 2012-04-23])

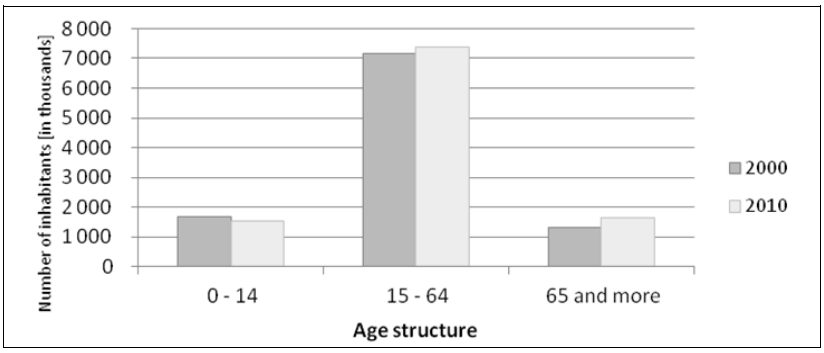
6.2.2.7 SOCIAL ENVIRONMENT

Social environment forms an integrated part of business environment. People, citizens, society represents the demand for particular product and depends only on their decision which commodity they prefer and thus create and drive the whole market. Therefore, to social environment must be given considerable attention.

At present, not only in Europe but also in all developed countries is noticeable process of demographic aging. The proportion of people aged above 60 years increases and the proportion of people younger than 15 years reduces. Since 90s of 20 century can be observed reducing percent share of children. In 1997 was in the Czech Republic time when firstly dominated population older than 60 years the child component of the population and the prevalence since that time has been steadily increasing. Furthermore, not only in the future significantly increase the number of people of retirement age, but will change the age composition of the older population: the share of persons aged over 80 years will increase, i.e. those for which it can be assumed a higher need for social and health care.

The target group of consumers of both conventionally and organically grown wines is residents of the republic over 18 years. To show how the population evolves according to the age is shown in the following chart (graph 6.8).

Graph 6.8 Number of inhabitants according to age in 2000 and 2010 (in thousands)



Source: CSO

Finally is presented population growth and total fertility rate in Czech Republic. The population growth is -0.082 % in the Czech Republic. This means that population is in fact decreaing. The big isme i salso fertility rate. Czech Republic is facing very low fertility fate that amounts 1.23 children / mother. (CIA)

6.2.3 TECHNOLOGICAL ENVIRONMENT

In the field of viticulture and winemaking is very important to monitor technological changes and developments of modern technology so that the quality of wine produced is the best. In this case, the production of conventionally and organically grown wines are different and it should be noted that organic winemakers have developed for the production of organic wine specific procedures that take into account the principles of organic farming. These private initiatives wine countries (e.g. Austria, Germany, Switzerland, Italy, Greece, France and Spain) have the character of standards or guidelines and apply to groups or associations organic wine growers. These guidelines are linked to the certification level of the union, or national level.

Production process of organic wine (KRAUS, 2005-2008)

Winemaker, who is involved in the production of organic wine must meet the following technological processes:

- Harvesting grapes at optimum maturity stage by hand into small crates
- Avoid inconsiderate crushing, removing of grains and pumping pulp
- Press in pneumatic presses
- Reduce oxidation of must
- Purge musts for white wines
- Do not use genetically manipulated leaven during fermentation but fermenting musts by spontaneous microflora
- Use the smallest dose for sulphurizing wine
- For the clarification of wine should not use other means than bentonite or albumen in case of red wine
- Do not use enzymatic means

Generally, the wine-growing mode of organic viticulture is compared with integrated production significantly more demanding on the level of knowledge and experience, and much more demanding on the ability of strategic thinking. Organic viticulture, if the final product will

be called wine from organically grown grapes, is much more demanding in terms of organization.

6.2.4 ECOLOGICAL ENVIRONMENT

Ecological environment is on production of organically grown grapes very important aspect and significantly differ from conventional point of view. Organic wine is made from grapes obtained from vines that are grown according to the rules of organic farming. Processing of grapes is being cultivated without the use of yeast, enzymes and other synthetic products, and stabilizing agents. The result is a purely natural wine without residues of synthetic and artificial colorings and flavorings, whose production was the highest concern for the environment.

Organic wine growers care much more about soil fertility and rich soil life, which allows the grapes to get more substances that enhance the taste of wine and gives it a distinctive character. In addition to organic food production contributes to organic farming better living conditions of animals, to protect the environment and increase biodiversity protection.

Ministry of Agriculture is the guarantor of compliance with the rules for organic farming, both national and European legislation. Ministry of griculture also administers state support for organic farmers under national grants and the Rural Development Programme and is coordinated by the implementation of strategic documents development of organic agriculture. In the form of financial aid is actively involved in supporting marketing, education and training. (eAgri, [cit. 2012-04-23])

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7 INTERNATIONAL AGRO-FOOD TRADE ANALYSIS

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7.1 INTRODUCTION

International trade is integral to the process of globalization. Globalization is a long-term process of changes in geographical organization of society. It creates a new ordinary level of organization of society – the global level. Integration of some human activities on a global level influence the social development on lower levels. The substance of the globalization process is based on the creation of global entities themselves but it also creates new relations between global and local entities, among regional, national and international entities [Bielik et all 2009]. Czyżewski and Poczta-Wajda [2011] define globalization as a process of market operation across borders as well as a process of elimination of methods and means of domestic market protection against competition from outside.

Over many years, governments in most countries have increasingly opened their economies to international trade, whether through the multilateral trading system, increased regional cooperation or as part of domestic reform programmes. Trade and specialization more generally have brought enormous benefits to many countries and citizens. Trade has allowed nations to benefit from the specialization and economies to produce at a more efficient scale. It had raised the productivity, supported the spread of knowledge and new technologies and enriched the range of choices available to consumers.

The impact of foreign trade on the structure of production in the food industry is very important. Trade can solve problems related to permanent or temporary shortages of some agricultural commodities and food, formed as a result of the collapse of agricultural production or inability to produce due to unfavorable natural conditions. Agricultural imports thus balances the output gap for goods that are not produced in the country, which are characterized by seasonality or individualized features [Pawlak & Poczta 2011].

But deeper integration into the world economy has not always proved popular, nor have the benefits of trade and globalization necessarily reached all sections of society. If trade leads to an increase in agricultural prices, this is likely to be good news for net producers of agricultural products, who are likely to increase production. Those who remain net consumers, however, are likely to be affected negatively by an increase in agricultural prices. Globalization has caused significant structural changes in parts of the global economy. Some countries and economic sectors have been able to take advantage of these structural changes better than others.

Changes in patterns of production, advances in technology and changes in domestic and trade policies play an important role in determining the international agro-food trade level, exports and imports directions and its structure. This is also helped by the fact that many businesses are increasingly organizing production along global production chains. The diets and preferences of consumers and the demands of an increasingly concentrated food industry have driven many of the shifts in trade among commodities. These have been further influenced by globalization and the spreading presence of the fast-food industry.

Income growth, relative price changes, urbanization and shifts in consumer preference have altered dietary patterns in both the developed and developing countries. When people have more money to spend, they add more variety and more expensive and high value foods to their diets. These changes are reflected in both the volume and the composition of world trade in agricultural commodities.

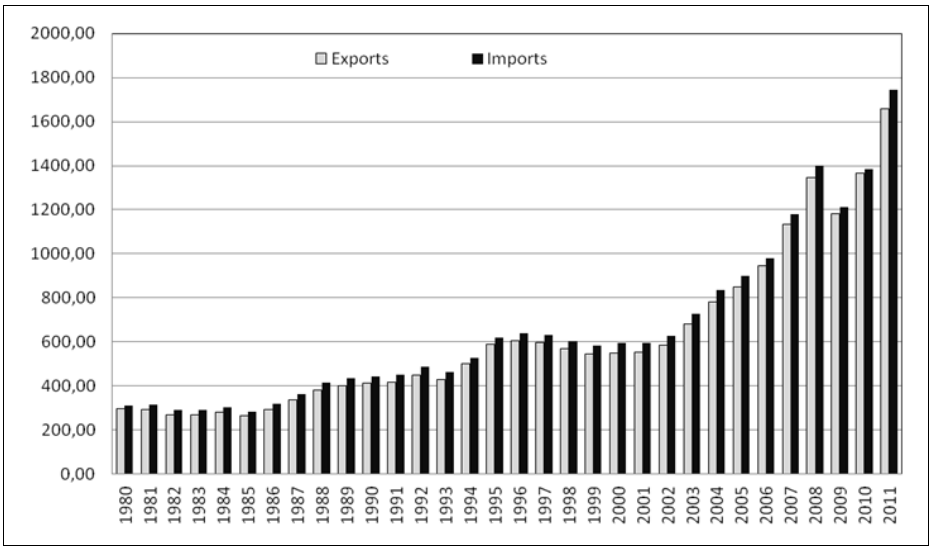
Developments on the markets and international agro-food trade depend on many uncertainties. Systematic risks affecting all commodity markets include macroeconomic risks, such as labour market risks in developed economies, financial market risks, currency risks, inflation in emerging economies (with China playing a central role), prospects of economic growth and income levels in developing countries on the demand side and climatic conditions on the supply side. Some newer risks, such as uncertainties associated with increasing linkages with the energy market have yet to be fully factored in. Additional specific uncertainties include reliance on a few key producers and exporters, as well as unexpected interventions in the policy space to protect domestic markets.

Global trade in foodstuffs has grown rapidly and changed radically over recent decades. The aim of this paper is to discuss the evolution of agricultural trade over last decades with special attention to influence of global crisis on trade flows, to show largest exporters and importers and their trade balances, to explore what is the share of main exporters and importers in world trade, to analyze the dynamism and structure of exports and imports of main agro-food trading powers and to answer the question what is the importance of the European Union in world trade and how it has changed over last years.

7.2 EVOLUTION OF AGRICULTURAL TRADE OVER THE LAST DECADES

Global Agro-food exports reached $1,659.52 million, imports $1,745.21 million in the year 2011 (graph 7.1). Both agro-food exports and imports increased more than fivefold from the year 1980 to 2011, but imports increased at a slightly greater extent. Throughout all this period negative trade balance occurred, the size of this negative balance remained at a fairly constant level until the end of the 1990s (not to exceed minus $ 40 billion). In 2000s negative agro-food trade balance continued and it exceeded the limit minus $ 40 billion. In the year 2010 negative balance decreased to $17 billion, to reach a year later the lowest level in the history (minus $ 85 billion).

Graph 7.1 World exports and imports of agricultural products (in billion $)

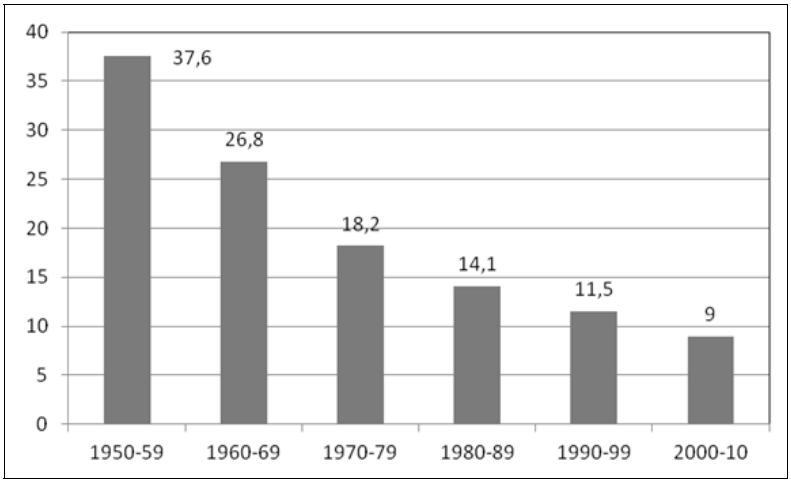


Source: [WTO Statistics database]

A long term shift in the composition of world merchandise trade has occurred, with the share of manufactured goods rising dramatically, against a decline in agricultural products and non-fuel minerals [WTO 2008]. Industrial goods account for about 70% of total world exports, raw materials and agricultural products 10% and services 24%. In the last three decades the highest growth rate was recorded in the trade in services, which is in connection with the growing importance of services in the GDP of many countries. The dynamics of trade in industrial goods was stronger than in the case of raw materials and agricultural products [Rymarczyk 2012].

The share of agricultural products in world merchandise exports decreased to a historic record low of less than 9 per cent (graph 7.2). Although recent oil price developments played a major role in the further relative decline of agricultural products in world merchandise exports, they only accentuated an existing long-term downward trend. The share of agricultural products (including processed products) in world merchandise exports has decreased steadily over the last six decades, from more than 40 per cent in the early 1950s to 10 per cent in the late 1990s, as both volume and price trends have been less favorable than for other merchandise products.

Graph 7.2 Share of agricultural products in world merchandise exports, 1950-2010 (percentage, period averages)



Source: [WTO 2006, World and Regional Export Profiles 2010].

Table 7.1 shows the growth rates of world exports. Real manufacturing export growth increased at similar rates during the two periods (about 8.5 percent p.a.). Agricultural trade on the other hand, decelerated significantly from close to 6 percent p.a. to 1.5 percent. Developing country export rates also decelerated both for agriculture and manufacturing. For manufacturing the decline in growth rates are modest, from a very high rate of 14.6 percent p.a. to 12.3 percent p.a. These are both very high rates. For real agricultural export growth, the decline is much larger. Annual export growth rates decline from 7.5 percent p.a. to only 2.7 percent p.a.

Table 7.1 Average Annual Real Export Growth Rates, 1990/91 - 2006/07

Sector	World Exports (%)		Developing Countries Exports (%)					
			Total		Developing to Developing Countries		Developing to Industrial Countries	
	1990-91/ 2000-01	2000-01/ 2006-07	1990-91/ 2000-01	2000-01/ 2006-07	1990-91/ 2000-01	2000-01/ 2006-07	1990-91/ 2000-01	2000-01/ 2006-07
Agriculture	5.7	1.5	7.5	2.7	15.0	4.5	4.4	1.1
Manufacturing	8.5	8.4	14.5	12.3	22.4	15.8	11.8	9.7

Notes:
Manufacturing imports are adjusted by the manufacturers' unit value, world agricultural trade are adjusted by agricultural commodity price index with world trade weights, and developing country agricultural exports are adjusted by the same index with developing country trade weights.
Manufacturing is defined as SITC (5+6+7+8-68) and agriculture as SITC (0+1+2+4-27-28) in Revision 3.
Industrial countries include Australia, Canada, EU15, Iceland, Japan, Norway, New Zealand, USA, and Switzerland
Developing countries are included the rest of the world excluding 23 industrial countries.

Source: Based on mirror data from UN COMTRADE Statistics and World Bank Commodity Price database [Aksoy & Ng 2010]

When one looks at the components of the agricultural export growth rates for developing countries, there is a deceleration in their export growth rates to both developing and industrial countries. Export growth to other developing countries decrease from 15 percent p.a. to only 4.5 percent. Still, the growth rates to other developing countries are much higher at 4.5 percent p.a. versus only 1.1 percent for the exports to industrial countries.

Over the course of the past 40 years, the new flow of agricultural commodities between developed and developing countries has reversed direction. In the early 1960s, developing countries had an overall agricultural trade surplus of almost US$7 billion per year. By the end of the 1980s, however, this surplus had disappeared. During most of the 1990s and early 2000s, developing countries were net importers of agricultural products. FAO [2004] has projected that this agricultural trade deficit is likely to widen markedly.

7.3 LARGEST AGRICULTURAL EXPORTERS AND IMPORTERS IN WORLD MARKETS

Tables 7.2 and 7.3 show the imports and exports of the top 20 countries in terms of sizes of imports and exports. This table also shows the shares of these top 20 countries in total exports and imports over the last two decades. Few things stand out. First, most of the large importers and exporters are industrial countries. USA is the world's largest importer and exporter. Among the top 10 exporters, there are 3 developing countries, China, Brazil, and Argentina. Among the top 10 importers, there is only one developing country, namely China.

Table 7.2 The 20 Largest Agricultural Exporters in World Markets, 1990/91-2006/07

Exporter	Agricultural Exports ($ million)			World Market Share (%)		
	1990-91	2000-01	2006-07	1990-91	2000-01	2006-07
United States	52,403	77,157	105,951	14.0	13.6	10.5
Netherlands	30,867	35,180	63,717	8.2	6.2	6.3
Germany	21,464	29,473	62,956	5.7	5.2	6.2
France	32,621	35,210	61,491	8.7	6.2	6.1
Canada	20,348	37,705	47,438	5.4	6.6	4.7
Brazil	9,944	19,610	45,511	2.7	3.4	4.5
China	8,023	19,543	36,849	2.1	3.4	3.7
Spain	10,070	17,739	33,777	2.7	3.1	3.4
Italy	11,728	16,191	31,923	3.1	2.8	3.2
Argentina	7,152	12,919	27,944	1.9	2.3	2.8
Belgium	12,650	14,422	27,667	3.4	2.5	2.7
United Kingdom	12,492	16,623	24,752	3.3	2.9	2.5
Australia	10,706	18,478	24,386	2.9	3.2	2.4
Indonesia	4,439	10,026	22,335	1.2	1.8	2.2
Thailand	7,577	12,996	21,591	2.0	2.3	2.1
Russian Federation	…	8,587	19,693	0.0	1.5	2.0
Malaysia	8,809	8,477	17,925	2.4	1.5	1.8
Denmark	10,309	10,900	17,479	2.8	1.9	1.7
Mexico	4,140	8,783	15,436	1.1	1.5	1.5
Chile	3,619	7,730	15,403	1.0	1.4	1.5
All above countries	279,363	417,748	724,223	74.6	73.4	71.8

Note: Agriculture is defined as SITC (0+1+2+4-27-28) in Revision 3.

Source: Based on mirror data from UN COMTRADE Statistics [Aksoy & Ng 2010].

Second, among exporters, most industrial countries have seen a decline in their export shares between 1990/01 and 2006/07. The only exceptions are Spain and Italy. All developing countries, on the other hand have increasing export shares. Among importers, the patterns are more mixed, with some industrial countries and some developing countries having increasing shares. The results are not as clear cut. Most dramatic changes are in China and Japan. China, from being a small importer (1.4 percent of world imports in 1990/01), increased its imports to be the fifth largest importer at 5.4 percent of world imports in 2006/07. Japan, on the other hand, went from the world's almost largest importer to being the fifth. Its imports went down from 11 percent of world imports to about 6 percent.

There are some interesting changes in the net trade position of some of the large industrial countries. For example, Germany was a large net importer of agricultural products in 1990/01. Its net imports constituted about $16 billion which was about 6 percent of world imports. In 2006/07, its net imports had declined to $13 billion, which now constituted only 1.9 percent of world imports. USA moved in the opposite direction. It had a trade surplus $21 billion in 1990/01 which was almost 8 percent of world imports. By 2006/07, its surplus had decreased to $8 billion which constitutes only 1.4 percent of world imports. Among the developing countries, China has moved from being a large net exporter to a large net importer. Its net imports in 2006/07 were $15 billion, more than Germany.

Third, share of top 20 countries in total exports and imports have decreased, indicating lower concentration. This means that other smaller exporters and importers have increased their shares, contributing more to world trade.

Table 7.3 The 20 Largest Agricultural Importers in World Markets, 1990/91-2006/07

Importer	Agricultural Imports ($ million)			World Market Share (%)		
	1990-91	2000-01	2006-07	1990-91	2000-01	2006-07
United States	31,412	61,895	96,471	9.2	11.8	9.9
Germany	37,323	42,647	75,708	11.0	8.1	7.8
United Kingdom	22,918	29,223	55,423	6.7	5.6	5.7
Japan	37,250	47,097	54,561	10.9	9.0	5.6
China	4,833	18,086	52,299	1.4	3.4	5.4
France	23,182	27,494	49,423	6.8	5.2	5.1
Italy	25,963	26,576	48,741	7.6	5.1	5.0
Netherlands	20,180	25,054	48,120	5.9	4.8	5.0
Spain	9,593	15,430	31,040	2.8	2.9	3.2
Belgium	15,632	16,534	29,284	4.6	3.1	3.0
Canada	8,678	15,193	25,199	2.5	2.9	2.6
Russian Federation	…	9,336	24,407	0.0	1.8	2.5
Mexico	4,548	10,385	18,096	1.3	2.0	1.9
Korea, Rep	6,953	10,607	17,190	2.0	2.0	1.8
Hong Kong (China)	5,137	9,471	11,969	1.5	1.8	1.2
Austria	2,861	5,119	11,114	0.8	1.0	1.1
Denmark	4,200	5,370	10,814	1.2	1.0	1.1
Sweden	3,331	4,943	10,351	1.0	0,9	1.1
Poland	1,569	3,333	10,243	0.5	0.6	1.1
Taiwan (China)	5,221	6,766	9,644	1.5	1.3	1.0
All above countries	270,783	390,558	690,099	79.6	74.3	71.0

Note: Agriculture is defined as SITC (0+1+2+4-27-28) in Revision 3.

Source: Based on mirror data from UN COMTRADE Statistics [Aksoy & Ng 2010].

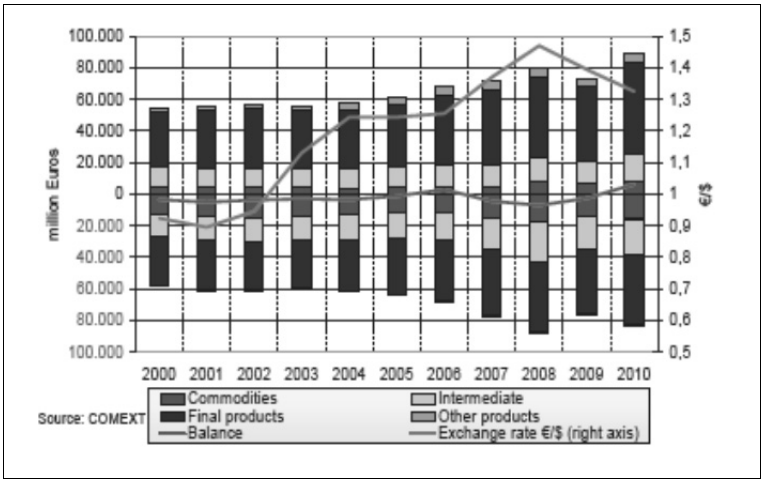
The Great Depression has taken its toll on international trade. Both the EU and the US suffered a setback in 2009, with a slump in export of 13-14%. The EU lost export market share in 2008, dropping from 19% in 2007 to 18% in 2008, but managed to hold its ground in 2009. On the other hand the US gained market share in 2008, reflecting the increased value of commodities, but lost this in 2009.

Brazil and China suffered less from the recession, with relatively flat sales in 2009, but both grew strongly in 2010. Brazil and China are increasing their share in world agricultural trade. Brazil remains the third largest exporter (and the biggest net exporter), with 23% growth in the value of its exports in 2010 year after a slight drop in 2009. Meanwhile China inched ahead of Argentina in 2009 to become the world's fifth biggest exporter, and next in 2010 overtaken Canada to become the world's fourth biggest exporter, with an impressive 30% surge in exports in 2010 after minimal growth in 2009.

7.4 TRADE BALANCES OF MAIN AGRO-FOOD POWERS ON WORLD MARKETS

The EU's trade balance continued to improve in 2010 to the extent that it switched from being a net importer with a trade deficit of €2.5 billion in 2009 to a net exporter, for the first time since 2006, with an agricultural trade surplus of over €6 billion (graph 7.3). The surplus is largely due to growth in the value of exports after the contraction of trade in 2009 linked to economic crisis and the drop in commodity prices.

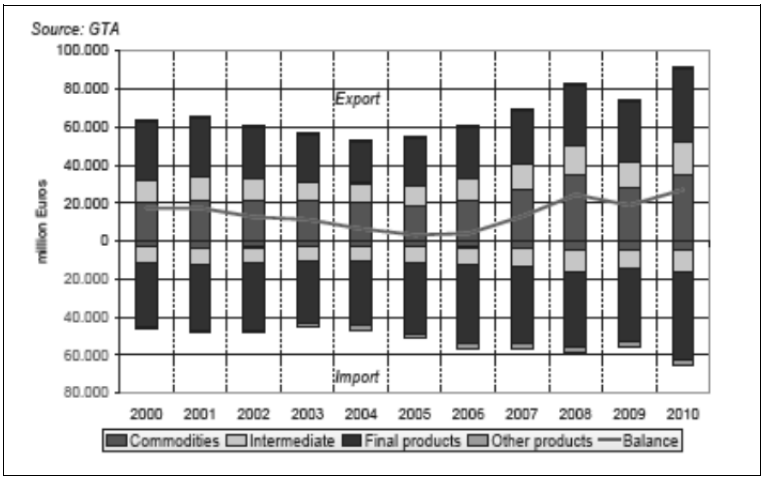
Graph 7.3 EU-27 Structure of Agricultural Trade 2000-2010



Source: [Monitoring Agri-trade Policy]

The US reached a record agricultural trade surplus of €27 billion (graph 7.4), with the value of exports at an all time high of €92 billion (+24% on 2009). The US remains heavily dependent on commodity exports which accounted for 38% of all agricultural exports in 2010. The top US exports in value terms are soybeans and other cereals (mainly maize). Wheat and cotton are also among important exports. Together these top 4 added up to over one third of exports in 2010.

Graph 7.4 US Agricultural Trade Balance 1999-2009



Source: [Monitoring Agri-trade Policy]

NAFTA remains the key trading partner for the US, accounting for almost one third of exports. Canada is the top export market while Mexico slipped into third place, after China, (where US exports grew intensively). The EU was in fifth place after Japan, with around 8% share.

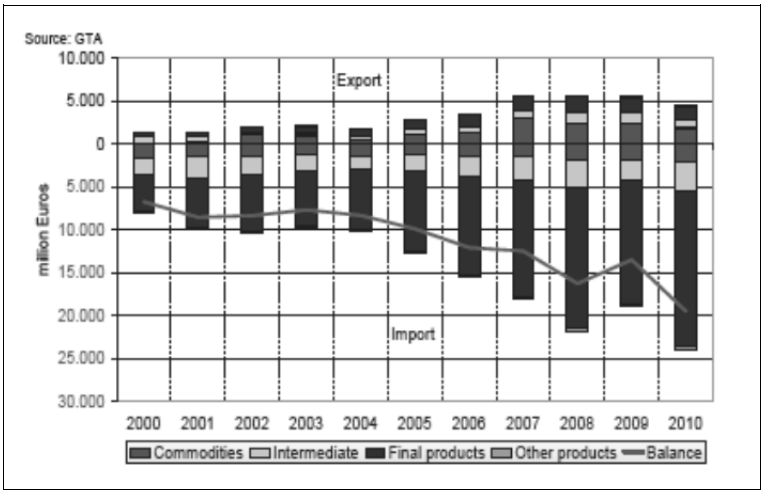
US imports reached a record €65 billion, though growth was lower than for exports. Final products account for 70% of US imports in 2010. The EU remains the US's largest import partner (reaching about 22% of the US market), followed by Canada and Mexico.

Russia, a net importer of agricultural products, has seen huge growth in imports in recent years, with the exception of 2009 (graph 7.5). Imports recovered by 26% in 2010, so that the trade deficit peaked at a new record of €19.5 billion.

The main imports are final products (75% for 2007- 2010). The EU is the biggest supplier (38%) followed by Brazil (12%). This market is very unstable due to sanitary restrictions. For example poultry imports continued to fall, to a level 30% below the peak of 2008, due to continuing trade restrictions ostensibly linked to sanitary concerns.

Meanwhile agricultural exports contracted by 20% in 2010, having hardly been affected by the recession in 2009 (down 4%), to reach the lowest level since 2006. This was driven by the cereals export ban imposed since August 2010. The value of wheat exports fell by 20% in 2010 (36% of all exports) while other cereals slumped by 58%.

Graph 7.5 Russia's Agricultural Trade Balance

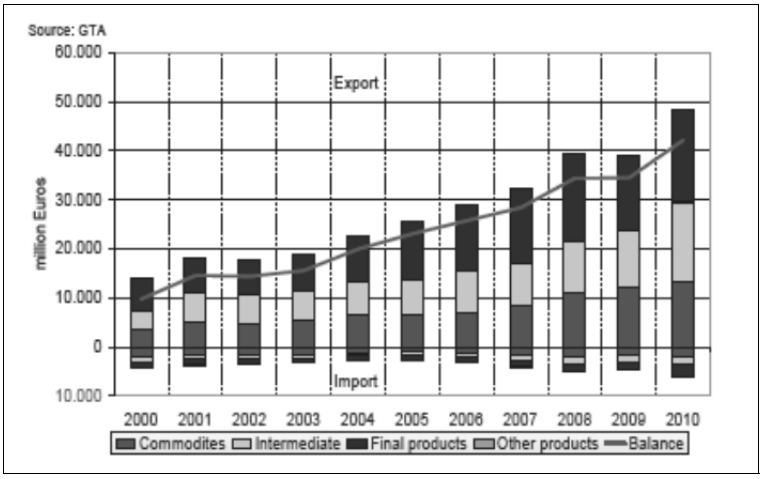


Source: [Monitoring Agri-trade Policy]

Brazil's exports reached record levels in 2010, with 23% growth despite the 12% strengthening of the Real against the US$, potentially damaging its competitiveness on global markets. The rise was concentrated in intermediate products which gained increase in value, thanks to higher prices, and final products (graph 7.6).

Raw sugar is the top export, as well as tropical coffee, tea & mate. It can be observed a return to the trend of increasing meat exports - poultry and beef exports recovered strongly following the dip in sales in 2009 linked to market access issues in the EU and Russia. The EU is the number one export market, though its share declined from 36% in 2007 to 26% in 2010. China is in second place driven mainly by growth in soybean exports.

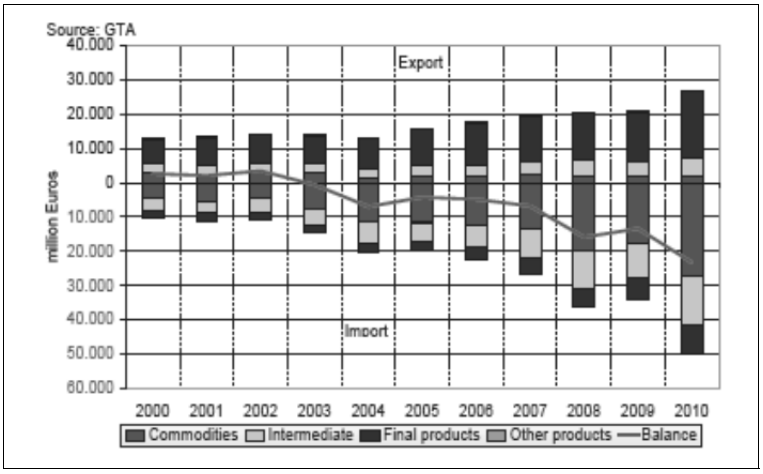
Graph 7.6 Brazil's Agricultural Trade Balance



Source: [Monitoring Agri-trade Policy]

China's trade deficit in agricultural products rose in the 2000s, as a result of a dramatic surge in imports (graph 7.7). China tends to import commodities and to export final products, reflecting the scarcity the country's arable land and water as well as an abundance of relatively cheap labour. More than half the value of imports (54%) is commodities, over 70% of exports is in the final products category. The top import is soybeans which alone accounts for 38% of all agricultural imports. The Chinese textiles industry is catching up as witnessed by the sharp increase in imports of cotton, flax and hemp, raw hides and skins as well as wool and silk.

Graph 7.7 China's Agricultural Trade Balance

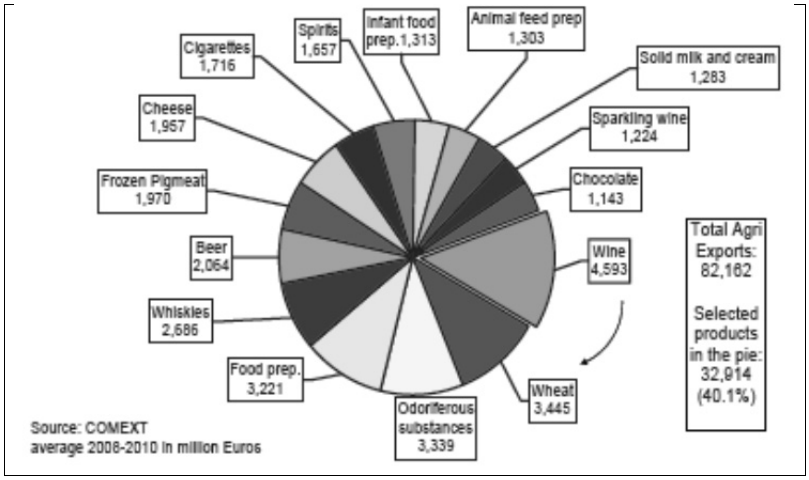


Source [Monitoring Agri-trade Policy]

7.5 THE EU SPECIALIZATION AND TOP TRADING PARTNERS IN EXPORT

The EU's export profile has changed little in recent years. Final products and other products together account for 69% of the value of EU exports in 2008-10, while intermediate products and commodities represent 20% and 9% respectively. Graph 7.8 shows that 12 of the top 15 exports were final products, the exceptions being wheat (a commodity), milk and cream and odoriferous substances (other products).

Graph 7.8 EU27 - Main Agricultural Exports

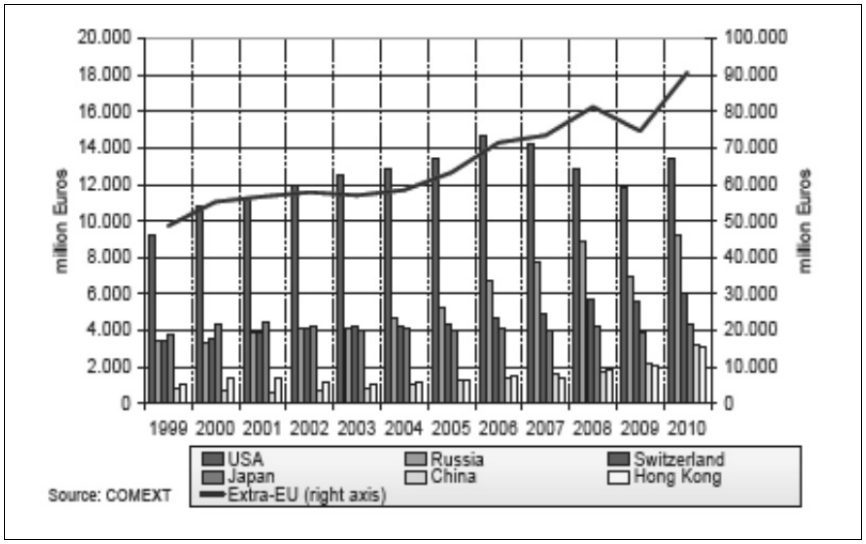


Source: [Monitoring Agri-trade Policy]

The top 5 remain the same during last years and combined they account for one fifth of EU exports. Wine (€4.6 billion) is still the EU's highest value export in 2008-10, followed by wheat (€3.4 billion), odoriferous substances (€3.3 billion), food preparations (€3.2 billion) and whiskies (€2.7 billion).

The EU increased sales to all of its top export markets (mainly developed countries) in 2010 (graph 7.9).

Graph 7.9 EU27 - Agricultural Exports by Destination



Source: [Monitoring Agri-trade Policy]

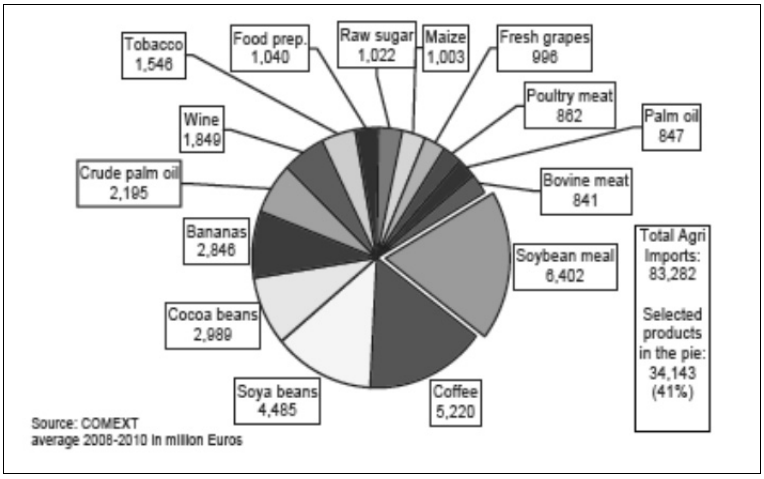
Exports to the US recovered for the first time since 2006, by almost 14% (€1.6 billion) in 2010. The US is still the EU's largest market, though its share went down to under 15% in 2010, followed by Russia, with over 9%. The biggest absolute gain in exports (€2.2 billion) in 2010 was to Russia where sales grew by nearly one third.

Furthermore record-breaking gains were made in exports to China and Hong Kong with exports up by around 50% generating increased value of more than €1 billion each. These are among the EU's fastest growing markets. Over the past 5 years exports to China and Hong Kong have recorded annual growth of 24% and 19% respectively. This compares to 7% annual growth for Russia and a contraction of 2% per year for the US.

7.6 THE EU SPECIALIZATION AND TOP SUPPLIERS IN IMPORT

There is very little change in the profile of imports compared to last years. Final products and other products account for some 54% of the value of imports, while intermediate products and commodities have a share of 27% and 19% respectively. The top 15 imports for 2008- 10 are shown in graph 7.10.

Graph 7.10 EU-27 Main Agricultural Imports

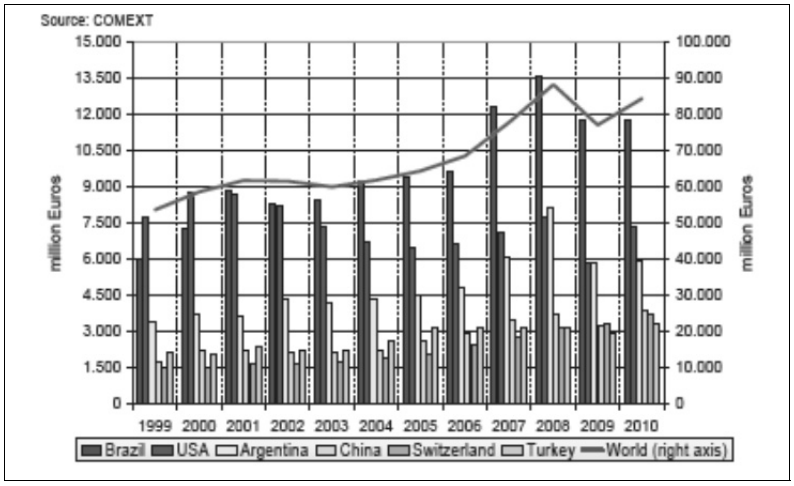


Source: [Monitoring Agri-trade Policy]

Soybean meal (an intermediate product) remains the EU's top import, followed by coffee (a final product), valued at €6.4 billion and €5.2 billion respectively. Soybeans (a commodity), worth €4.5 billion is ranked at number 3 (together soybean meal and soybeans add up to 13% of total imports). One important change is that poultrymeat and offal imports now feature in the top 15 (replacing wheat), with import value up by 8%.

Brazil remains the top supplier to the EU accounting for 14% of EU imports in 2010 (graph 7.11). Imports from Brazil and Argentina stayed fairly flat from the year 1999 to 2007, then it raised.

Graph 7.11 EU27 - Agricultural imports by origin



Source: [Monitoring Agri-trade Policy]

Meanwhile the US regained some lost ground with a 25% increase in the value of their imports into the EU, thus reaching nearly 9% EU market share, though imports are still below 2008 levels. China also increased sales by 21%, while other top suppliers Switzerland and Turkey stepped up their sales to the EU by 14% and 13% respectively.

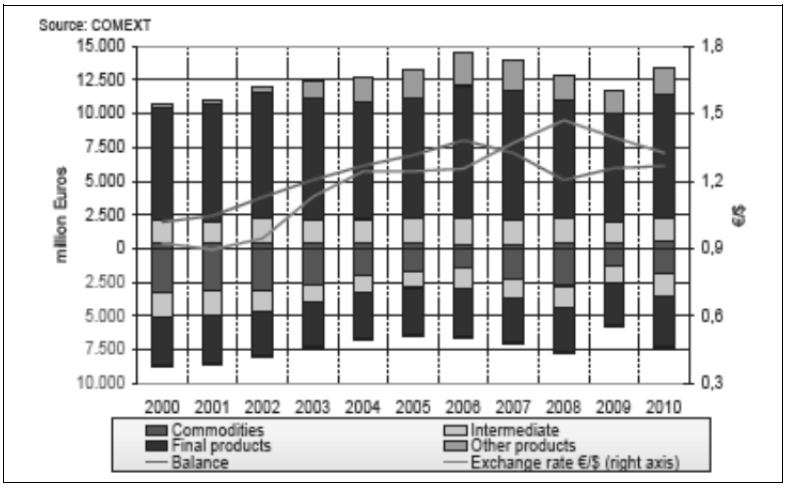
7.7 THE EU TRADE BALANCE WITH MAIN PARTNERS

The EU and the US are important trading partners. The US is the EU's biggest export market while the EU is the fifth biggest market for the US. EU exports to the US made a 14% recovery in 2010 (+€1.6 billion), having fallen consistently since 2006. This growth can largely be attributed to the 14% increase (+€1.1 billion) in the value of final goods (more than two thirds of EU exports to the US), though commodities also grew by 35%.

The EU's top exports to the US are mainly final products and "other products". Spirits was the top export in 2010, valued at €2.4 billion, followed by wine worth €2 billion and odoriferous substances at €1.4 billion (now classified as other products and used mainly for flavour by the drinks industry).

The biggest increase in exports in 2010 was in spirits, which grew by €380 million (+19% in value and +18% in volume). Increases of over €100 million were also recorded for each of wine (+28% volume), cocoa and water. Together the top 10 products account for 75% of the value of exports.

Graph 7.12 EU27 Trade with the US

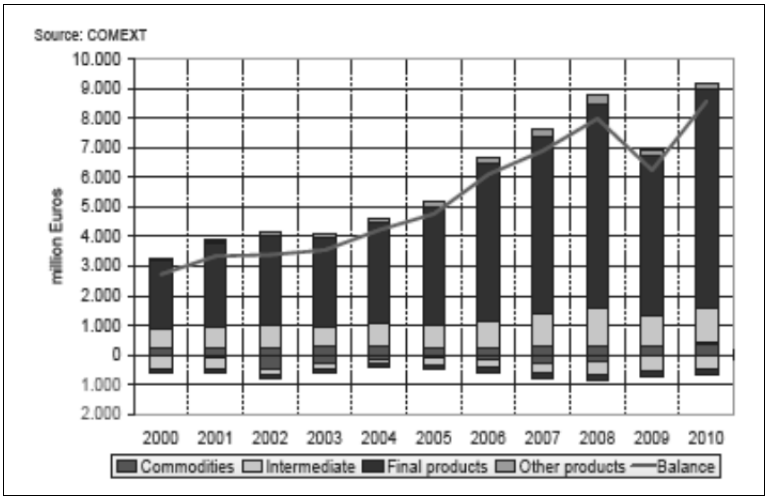


Source: [Monitoring Agri-trade Policy]

Turning to EU imports from the US, the sharp fall in 2009 (mainly commodities), was reversed with 25% growth in 2010 (+€1.5 billion), with 46% growth in commodities and 28% in intermediate products. The biggest increases were for soybeans (+70%) and oilcake (+50%). The EU's trade surplus in agricultural products with the US reached over €6 billion in 2010 (graph 7.12).

The EU is the biggest supplier to Russia, accounting for 38% of its imports in 2010. Russia is also the EU's second biggest export market and is where the EU made the biggest gains in 2010. The downturn in exports in 2009 was reversed last year with growth of almost one third in the value of exports (€2.2 billion) of which €1.9 billion is final products (graph 7.13).

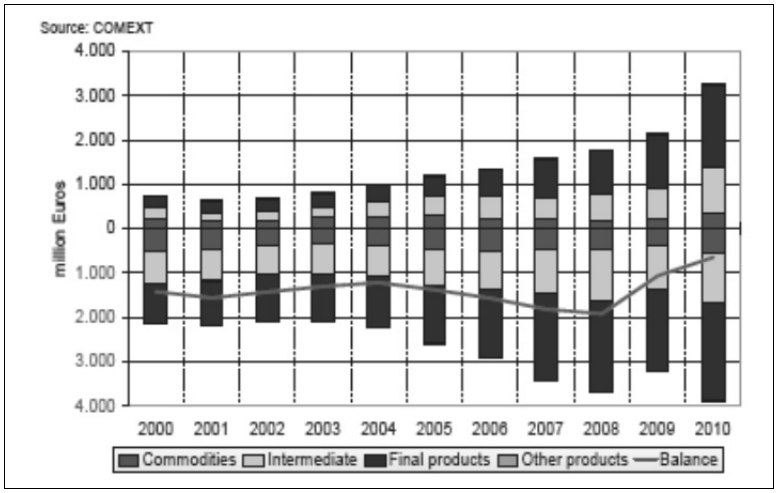
Graph 7.13 EU27 Trade with Russia



Source: [Monitoring Agri-trade Policy]

EU exports to Russia are spread across a wide spectrum of products; 80% of which are final goods. The top exports in 2010 were fresh fruits, cheese and frozen pigmeat. The biggest growth in sales was recorded for cheese (+63 %), fresh vegetables (+61 %) and fruits (+32 %). Exports of spirits and wine grew strongly with the value of sales growing well in excess of the volume increases, indicating that consumers may be switching to higher value products (whiskies +5% in volume but +63% in value, wines +14% volume and +44% value).

Graph 7.14 EU27 Trade with China



Source: [Monitoring Agri-trade Policy]

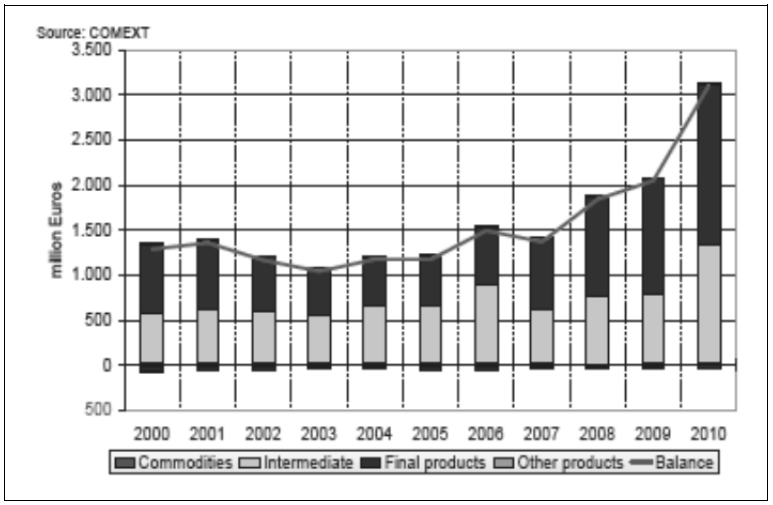
China and Hong Kong are now among the top growth markets for EU exports. EU exports to China shot up by over 50% in 2010 (well above the annual growth rate of 25% since

2006). The EU now ranks as the fourth biggest supplier to China. Final products account for 56% of EU exports (graph 7.14). The top exports were raw sugar, butter and sheepmeat.

Meanwhile EU imports from China rose by 21%, so the EU's trade deficit fell by €650 million in 2009. The biggest increases in imports were recorded for spirits and cotton and flax.

EU exports to Hong Kong have also grown rapidly in recent years (at an annual rate of 19% since 2006), turning it into the EU's 6th biggest export market. Sales are comprised of final products which account for 56% and intermediate products (42%). EU exports to Hong Kong surged by 51% in 2010 (graph 7.15).

Graph 7.15 EU27 Trade with Hong Kong



Source: [Monitoring Agri-trade Policy]

7.8 CONCLUSIONS

The growth rate of trade in agricultural and food products is slower than in a case of industrial goods, due to differences in the rate of growth of demand for agro-food and industrial products. The consequence of this is a significant reduction in the share of exports and imports of agro-food products in total exports and imports.

The EU and the US are the world's key players in trade in agricultural products. The EU is the world's largest importer of agricultural products, followed by the US. Import of both almost doubled in value over the past decade. The EU is the world's second biggest exporter of agricultural products after the US. China experienced spectacular growth in imports, which expanded more than fivefold since 1999-01. By 2009 it had just overtaken Japan as the third largest importer. Brazil remains the third largest exporter with the biggest agricultural trade surplus.

A larger share of production and consumption is shifting towards emerging economies. The balance of power in world trade is changing. Dynamically developing countries (including China, Brazil) are taking over the role of growth centers [Kuśpit & Pasierbiak 2011]. China is among the EU fastest growing markets but the potential for grow in the EU exports is only in commodities as China tends to import commodities and to export mainly final products. For Brazil, the EU is number one export market. Among top exports there is raw sugar, coffee and tea, but also there is a tendency to increase meat export despite the fact of increased protection of market access in the EU and Russia.

Food imports by developing countries increased rapidly during the 1970s, grew more slowly during the 1980s and accelerated again over the 1990s. This expansion of food imports meant that that the food trade surplus of developing countries was transformed into a deficit during this period. Moreover, this trend is expected to continue: according to FAO projections, by the year 2030, the net food trade deficit of developing countries is expected to swell to more than US$50 billion in constant 1997-99 US$. This mean that developing countries become important market for food suppliers. The EU remains the biggest importer of agricultural products from developing countries, mainly commodities.

The worldwide economic crisis has taken its toll on international trade. According to the WTO, the volume of world trade in goods and services decreased by 12% in 2009, which is dramatic even by the standards of the Great Depression. Due to lower income elasticity of demand for food compared to manufactured goods, the volume of global agricultural trade was relatively less affected (-3%), though its value fell sharply by 13%.

2010 was a year of impressive growth in world agricultural trade, bringing the value of world trade to an all-time high, at least 12% above the previous record set in 2008. In 2010 US exports reached an all-time high of 92 billion EUR, just ahead of the EU's 91 billion EUR record. The EU emerges from recession as a net exporter in 2010

Rising incomes and rapid urbanization has contributed to changes in lifestyles, food preferences and the structure of commodity trade. As their numbers and purchasing power have grown, city-dwellers have increased demand not only for more dietary diversity, but also for products that require less time to prepare. World exports and imports of high-value and processed food products have risen to meet this demand. The EU is among main supplier of final products as this kind of products constitute a major part of the exports of the European Union.

According to United Nations estimates, the world's urban population is expected to increase by 70 percent over the next three decades. Most of this growth will take place in developing countries, particularly in Africa and Asia. Their higher incomes and urban lifestyles are likely to bring about further changes in the structure of global imports, accelerating the trend towards higher-value and processed foodstuffs.

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8 ENTREPRENEURSHIP OF WOMEN IN RURAL AREAS: SOME THOUGHTS FROM CASTILLA Y LEÓN (SPAIN)

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8.1 INTRODUCTION

In the context of current society, which is characterized by equal opportunities for men and women, gender is of interest for entrepreneurship research (Hisrich et al., 1996; Duchénant and Orhan, 2000; Orhan and Scott, 2001). It has been demonstrated that the motivation of women towards managerial activities is varied and can stem from diverse factors, such as the influence of the environment or the necessity or desire for achievement (Orhan and Scott, 2001). The comparison between male and female entrepreneurs demonstrates the existence of significant differences in relation to such aspects as the capacity of socialization or personality (Fagenson, 1993; Fisher, Reuber and Dyke, 1993; Envick and Langford, 2003). Following research carried out by Peters (2004), the role of women in the economy is one of the most representative phenomena of the start of the new century. In the United States, the number of women managing firms has increased from nine million in 1997 to approximately ten million six hundred thousand in 2004 (Center for Women's Business Research, National Numbers, 2004). In spite of these figures, it seems that at present, men are still more likely to create new business ventures and start-ups. Moreover, women tend to start their businesses slowly, take fewer risks than men, and try to avoid taking out loans. In addition, many women also work in another area, in order to decrease the business risk, and women use to be active in areas that do not require large investment, like services, tourism and agriculture (Philips, 2005).

For sustainable future development of rural areas the role women is decisive (Siiskonen, 2005). Previous research has mainly focused on the least developed countries in which entrepreneurship has been a solution for women to become independent (Kumari, Kaushikand and Lodha, 2010). Moreover, most programs for development in those countries have been driven by the objective to empower women (United Nations, UNIDO, 2003; United Nations, ESCAP, 2007; FAO, 2010, Sawada and Harishchandra, 2011). Recently, one interesting avenue for research is related to self-employment that is in some cases a solution for women who wish to stay in sparsely populated areas marked by depopulation and an ageing remaining population. In this context, also supporting women's entrepreneurship can be performed in various ways (Pettersson**,** Smed Olsen and Tepecik Diş, 2012).

The objective of this paper is to emphasize the role of women in the entrepreneurial activities and the challenges they have to deal. We try to achieve this goal, first, by enlightening the difficulties that women deal in rural activities in Castilla y León (Spain) and the incentives of governments to overcome those obstacles, and second, describing one story of successful and ongoing entrepreneurial activity managed by one women in Spanish rural area.

8.2 THE CHALLENGE OF BEING WOMAN ENTREPRENEUR IN THE RURAL AREA

Entrepreneurship for women is tough but when the environment is in the rural one, the task of being entrepreneur is much harder. Castilla y León (Figure 8.1) is one of the Spanish regions in which, during the last four years, the rural areas have all together contributed to the Spanish economy a value of 14300 million Euros per year. It is a very important sector linked to the territory, meaning that people work in small towns and attract other people to those areas.

Figure 8.1 Castilla y León in Spain

Source: LEDEBCN

By focusing on this specific region as Castilla y León in Spain, we will try to show which are the challenges for women entrepreneurs and which are the solutions given by Spanish and European institutions.

8.2.1 CHARACTERISTICS OF WOMEN ENTREPRENEURS IN THE RURAL AREAS

Women in the rural areas are characterized by progressive ageing (above the ones of men) and by a role of being in charge of children and domestic activities (Rico and Gómez, 2005). Focused on women that are part of the labor force in the rural areas in Castilla y León, their first trait is the orientation towards the services (almost 80%) instead of agricultural activities (less than 20%, and mostly when compared with the distribution of men among different economic activities –30% in the service sector and 30% in the agriculture sector- (Rico, 2003).

Only a 26.36% of women in the rural areas are entrepreneurs, while a 71.13% are employees and the 2.52% are members of nonprofits. Compared to the rest of women in the same region, in the rural areas women are more entrepreneurial (almost a 15% above). Looking for explanations to this difference, scholars suggest the difficult situation for women to find a job in the rural areas and the decision to start a venture trying to find a way to obtain income (Camarero, 2005). However, the percentage of women entrepreneurs compared to men entrepreneurs (41.39%) is still low, the size of companies created by men are also larger than the ones created by women. In fact, in ventures started by women usually all the activities are realized by themselves and they do not have employees.

Entrepreneurship occurs in the sectors that women are usually employed, that means that entrepreneurship concentrates in services (51.24%), in agriculture (40.38%), industry (6.94%) and construction (1.44%). Women entrepreneurship in agriculture is higher than being employed in this sector for two main reasons: (1) women start venturing their husbands when retire or pass away, and (2) women start venturing when their husbands work in other activity, one of them decide to be full time in agriculture to receive the grants coming from the European Union. In the rural areas, the rehabilitation of old house for rural tourism is one of the activities that women have started in the last ten years due to the increase of this kind of tourism in North Spain. Moreover, the reduced price of housing in the rural areas makes women to start textile business in these areas (in towns with a population of 2000).

The Spanish Service of Statistics (INe) shows the data reflected in Table 8.1 for 2009 in which we observe that women group smaller farms than men concerning agriculture and cattle farming. Moreover, the larger group within women is the one from 45 to 54 years old. Finally, data shows that the activities in rural areas is related to both agriculture and cattle farming simultaneously, being only one of those activities much less often realized by women.

Table 8.1 Size of the business by gender and age

Gender	Age of the owner	Agriculture & Cattle Farming	Agriculture but No Cattle Farming	Cattle Farming & No Agriculture
		Cattle Units		
Men	Less than 25 years old	3 154,59		653,53
	From 25 to 34 years old	87 400,20	0	11 237,80
	From 35 a 44 years old	257 734,17	0	32 093,07
	From 45 a 54 years old	338 264,91	0	44 980,49
	From 55 a 64 years old	256 565,64	0	31 037,86
	From 65 years old or more	73 418,54	0	14 512,85
Women	Less than 25 years old	961,64		251,00
	From 25 to 34 years old	8 990,55	0	1 320,52
	From 35 a 44 years old	37 712,59	0	8 128,83
	From 45 a 54 years old	43 035,27	0	9 794,32
	From 55 a 64 years old	41 042,71	0	6 440,95
	From 65 years old or more	28 960,08	0	3 692,24
Company	It is not an individual	513 501,21	0	400 083,04

Note: The term 'Cattle Units' refers to Number of animals adjusted by the species and type of animal.

Source: Own source based on data the National Statistic Institute (INe), 2009.

This data reflects previous data, which means, the age of women entrepreneurs in the rural areas is high – the 54.77% is more than 45 years old- (García Bartolomé, 2004). Young women are not willing to take the risks of starting their own business, they do not have enough education or training, or they do not want to stay in towns with a lack of services like hospitals, pharmacies, supermarkets, etc. (Pastor and Esparcia, 1998). Finally, women entrepreneurs in the rural areas are mostly married (74%) and the 54.34% have attended high school.

8.2.2 PUBLIC FUNDING FOR WOMEN IN THE RURAL AREAS

In Castilla y León rural areas, politicians and institutions try to promote entrepreneurship in a very active way. Predominantly, they offer with specific grants to initiate rural activities and/or renew rural business, and women in the rural areas are of particular attention due to the specific difficulties they have. Some of the grants directed to women in the rural areas are: eQuaL Program, the ones of the 'Instituto de la Mujer' (Ministry of Labor and Social Affairs), the ones of the Regional Service of Women (General Council of Castilla y León) and the ones of the Public Service of Employment (Castilla y León). Moreover, another two Programs can be included: LEADER and PRODER Programs.

eQuaL Program

The objective of this program is to fight against any inequality. Among the different initiatives included in this program, the regional government has focused in previous periods, the gender discrimination by helping women to increase their entrepreneurial intentions and

behavior. Moreover, through this program women can get some funding for the awarded projects.

Instituto de la mujer

This Institute has the objective to promote the conditions, in which women can increase their participation in political cultural, economic or social committees. The Institute is in charge of developing the Equal Opportunities Plans between men and women. To achieve this objective, the Institute also initiates programs to develop entrepreneurship in rural areas through the training programs, particularly, the OPTIMA program. Other than that, they started a program of grants for women to initiate ventures in the rural areas or a program of micro-credits for women, among others.

Regional Service of Women (Castilla y León)

As the previous services, the Regional Service of Women tries to promote equal conditions for men and women in the Castilla y León region. A particularly interesting service is the Network for Women Employment with which they help women to participate in the entrepreneurial activities. They provide counseling to women in the elaboration of the business plan, understanding particular legislation, dealing with negotiation, among other.

Public Service of Employment (Castilla y León)

This service manages the policies for promoting employment in Castilla y León. Due to its knowledge of the particular needs of women, the service has a program of grants to promote entrepreneurship, to help finding the deposits of employment, help women in particular difficult sectors for women to create a business, give funding, among others.

Leader Program

LEADER Initiative is not related directly to promote women entrepreneurship. However, by trying to improve welfare conditions of rural population has an effect on women entrepreneurial intentions. In fact, the last evaluated period (1995-1999), from the total of LEADER initiative, 30% has been headed by women.

Proder Program

PRODER is a program that promotes rural development. It is not a specific program for women but is a complement to other programs with specific funding and training for entrepreneurial initiatives. They have specific people called 'Grupos de Acción Local'.

8.3 STORY OF SUCCESS WITH A WOMAN ENTREPRENEUR

In the context that has been explained above, we detail one story of a woman that had the audacity to create their own businesses and are a reference for other women. In fact, she has been awarded with the Innovation Award for Women in the Rural Areas 2012 by the Ministry of Agriculture, Food and Environment in Spain.

One story of success

Maribel Sánchez is an entrepreneur who lives in a small village of 5100 people called Candeleda (Ávila, Castilla y León). She comes from a family dedicated to rear goats since her grandfather started long time ago, and she always enjoyed this job. At this moment, she is 40 years old, she has two children of 16 and 12 years old and she owns a goat business. She is a clear example of a successful story of a woman entrepreneur in the rural area.

In 2010, she took the challenge of rearing, in 'El Raso' area, an autochthonous breed called "Verata" which is in danger of extinction (close to Candeleda). Her business consists of

250 goats which she rear in a farm, and produces meat and milk (Figure 8.2). She employs two people and she generates employ in the industry of meat and milk. She uses a very innovative processes to mechanical milk the goats, to cold the milk and to feed the goats. Moreover, she has a social responsibility and she transmits the importance of caring about this breed by training the population. She teaches how to manage a farm of goats of the breed, and how to be a shepherd, even more, which is the culture of shepherds. For her, it is very important that goats graze in the country.

Figure 8.2 Maribel Sánchez working in her business

Source: El Norte de Castilla Journal, 2012

Her recent project has been to start a new product, that is, soap produced using the milk of her goats mixed with oil and she sell those products directly to the consumer in a web page (www.chivina.es). She also would want to reach the number of 400 goats.

For her, goats are all her life and she expresses a great satisfaction with her business project. She even says that goats are a "drug" for her even though she recognizes that the rural business is a very hard world.

Figure 8.3 Maribel Sánchez receiving the award the 15th October 2012

Source: Avilared, 2012

Maribel has just started a venture that will be reference for the rest of potential women in the rural areas. As Figure 8.3 shows, she was awarded with 25000 Euros in October 2012 by the Ministry of Agriculture, Food and Environment, as one of the nine most innovative women in the rural areas with their projects (for extended information of those awards, see the web: http://www.magrama.gob.es/es/ministerio/premios/premios-de-excelencia-a-la-innovacion-para-mujeres-rurales/).

8.4 CONCLUSION AND DISCUSSION

Women have a great potential to be entrepreneurs, and rural areas have special conditions that require an extra effort to achieve this venture. Public authorities are involved in the challenge and continuously develop the entrepreneurial spirit of women. Spain is an illustration but there is more businesses started by women in the rural areas in the rest of the European Union. In fact, the Network of Female Entrepreneurship Ambassadors is a clear example where women exchange their ideas, ambitions, intentions, knowledge to expand the entrepreneurial spirit all over Europe.

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9 EUROPEAN UNION FUNDING FOR AGRICULTURAL ENTREPRENEURSHIP

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Agricultural entrepreneurship is different from any other field of business due to its dependence on external factors, such as weather conditions, European Union quotas, inflation etc. All of these factors are often unpredictable and immediate, but agricultural business is a long-term business, that cannot be easily adjusted to new requirements.

The European Commission presents European agriculture as an important asset that has the following characteristics:

- A modern and competitive farming sector, capable of occupying a leading position on the world market, while safeguarding domestic producers' living standards and incomes;
- A sustainable, efficient farming sector that uses hygienic, environmentally friendly production methods and gives consumers the quality products they desire;
- A farming sector that serves rural communities, reflecting their rich traditions and diversity, whose role is not only to produce food but also to guarantee the survival of the countryside as a place to live and work, and as an environment in itself. (Cairol et al., 2009: 272-273)

In rural areas, it is possible to distinguish two basic types of job. The "traditional" jobs, whose production is sold outside the zone (agriculture and industry), and the jobs related to the residential and recreational functions (e.g. hotels and a part of restaurant). Indirect jobs are created through the purchase of intermediate products by the basic activities (e.g. wholesale businesses) or the purchase of final products by basic-job holders (some service jobs to meet local demand). (Vollet, 2006: 124)

To succeed, an agricultural entrepreneur needs to:

- Make sure that his production is really necessary in the market, analyse and calculate necessary amount of the production, how soon it would be needed and what kind of hidden opportunities it has (for example, it can be used for producing some other products and therefore can be sold not only directly to the consumer, but also to some manufacturers);
- Analyse environmental factors in the producing area;
- Manage and control the process of production, trying to find new opportunities;
- Deliver the product to its consumer as soon as possible (Zvirgzdiņa et al., 2009).

Survival in changeable conditions is possible with additional investments. In all European Union countries there are different governmental support programs for agriculture development, and also it is possible to obtain financial support from European Union grants that are available under the Common Agricultural Policy.

Common Agricultural Policy was accepted by six European Economic Community member countries in 1962. In the beginning by implementing the Policy the main aim of it was achieved – the Community was provided with food for acceptable price. Later, when agricultural production technologies developed and goods' quantity exceeded real needs, it became necessary to implement food producing limits. Thus, quotas were implemented.

In many areas the Common Agricultural Policy contributed to a decline in farm family incomes, the abandonment of farms in more marginal areas, the pollution of natural resources by intensive animal husbandry and horticulture and monotonous production landscapes, increasingly dominated by monocultures. (Cairol et al., 2009: 270) The designers of the Common Agricultural Policy set up production aids to make the European Union self-sufficient

in food products. However, in step with the increases in agricultural production, the numbers of people active in agriculture declined significantly. It was hypothesised that the decline in the agricultural workforce (with migration of young workers to cities) would be compensated by two phenomena. The first was the growth in jobs in the up-stream (production of fertilisers, agricultural machinery, etc.) and down-stream sectors (Agri-food industries). The second was growth in retail and service jobs due to the increase in the revenues of farmers. Work attempting to determine the multiplier or distribution effects of the revenues of the agricultural sector was carried out in parallel with this perception of agriculture as the basic foundation for rural development. (Vollet, 2006: 121-122)

Today, European Union policy aims to enable producers of all forms of food (cereals, meat, dairy, fruit, vegetables and wine) to:

- produce sufficient quantities of safe, high-quality food for European consumers;
- make a full contribution to diversified economic development in rural areas;
- meet very high standards of environmental care and animal welfare. (Agriculture ..., 2012)

The Common Agricultural Policy combines a direct subsidy payment for crops and land which may be cultivated with price support mechanisms, including guaranteed minimum prices, import tariffs and quotas on certain goods from outside the European Union. (Funding opportunities …, 2009)

Funding available under the Common Agricultural Policy:

- **European Agricultural Guarantee Fund (EAGF)** is responsible for direct payments to farmers, as well as measures to regulate agricultural markets (intervention and export refunds).

  Direct payments support farmers' incomes without being linked to production in return for them respecting standards of environmental protection, animal welfare, food safety and keeping the land in good condition. (Funding opportunities …, 2009)

  Direct payments have been one of the main support instruments to the agricultural sector in the European Union since the early 1990s. In addition to its role as income support for farmers, direct payments play a crucial role in the delivery of basic public goods through sustainable land management, due to the link between direct payments and the fulfilment of cross compliance requirements. The support provided by direct payments, especially by enabling the continuation of farming in more economically marginal areas, is a precondition for being able to provide more specific public goods throughout the European Union territory, e.g. through rural development measures. Therefore, the two elements, income support and basic public goods, are complementary objectives of the direct payments. (CAP towards …, 2011:9)
- **European Agricultural Fund for Rural Development (EAFRD)** helps to improve competitiveness for farming and forestry, to protect the environment and the countryside, to improve the quality of life and diversification of the rural economy and to support locally based approaches to rural development. (Funding opportunities …, 2009)

  Each European Union member country has its own national strategy plan that is being implemented using rural development programmes. These programmes are divided into 4 axes:
  - **Axis 1: Improving the competitiveness of the agricultural and forestry sector (training, young farmers' support, modernisation of agricultural enterprises, products' quality improvement etc.);**
  - **Axis 2: improving the environment and the countryside (farmers' motivation to protect and improve natural resources – biodiversity, water and soil protection, climate change mitigation);**

- **Axis 3: quality of life in rural areas and diversification of the rural economy (support for micro-entrepreneurships, development and promotion of rural tourism, protection of the natural heritage, life quality improvement in rural areas etc.);**
- **Axis 4: LEADER (implementation of local development strategies, inter-territorial or transnational cooperation projects implemented by local action groups).**

Agricultural entrepreneurs have a wide range of programmes for financial support, but not all of them want to apply for a grant. The main reason is bureaucracy and strict requirements. For many "old-school" farmers following these requirements means to destroy everything and to build not just a new farm, but also a new model of working and living. However, for young farmers raising money from European Union funds is a usual way of doing business in agriculture.

Project proposal is just the first step in implementing an agricultural project. Still, if the first step is not successful, others will not be done. Barnes et al. (2009) suggest a simple model of being successful when applying for European Union grants: be clear, be precise, be concise, be practical, be patient and be aware:

- Clearness means setting a clear aim and being as precise as possible.
- Precision means relevant and useful information.
- Concision in all statements – what exactly and how will be achieved within the project.
- Practicalness lies in clear and achievable aims.
- Patience means a long preparation time. To be successful, plan everything carefully, edit the proposal again and again – and do not give up trying if the first proposal is not successful.
- Awareness of previous years' beneficiaries helps understand which ideas are successful.

European Union grants are a good investment and a real support for farmers, but only in case of deep and detailed planning and hard work. Nevertheless, it really is worth trying.

9.1 SITUATION IN LATVIA

The natural conditions for agriculture in Latvia are considered to be less favourable than in other European countries. Over 90 per cent of agricultural land is too wet and 63 per cent of agricultural lands are drained (approximately 1.6 million ha). Soil chemical data show that 40 per cent of the soils in Latvia have increased acidity, including 23 per cent acid soils (pH <5.6). Amelioration projects are going on with support from the European Union.

The share of the workforce employed in agriculture is decreasing year by year, but agriculture reported the highest economic activity in rural areas. Employment growth in other sectors has been sluggish, as other basic sectors of the rural economy have comparatively limited alternatives. (Henriksson, 2007: 38)

The most significant agricultural product of Latvia remains milk, which comprises one-quarter of the total value of agricultural products in base prices, followed by cereals (19.5 per cent) and fodder crops (10.3 per cent). The dairy industry is located all over the country but more in the Kurzeme and Vidzeme regions. Beef cattle production is located more in the Latgale and Vidzeme regions. (Henriksson, 2007: 39)

To provide the important European Union, state and district level information in the agriculture sector to rural inhabitants, to ensure the administration requirements according to the European Union legislation, compliance with good agricultural practice and environmental requirements in the farms as well as inform about the possible support and provide the necessary feedback gathering information about the agriculture and rural development indicators in the

rural areas of Latvia, in 1991 the Latvian Rural Advisory and Training Centre was established (Latvijas Lauku..., 2008).

The organisation is under the Ministry of Agriculture and receives about 50-60 per cent of its funding from the state. Latvian Rural Advisory and Training Centre has about 377 employees and there is one **Rural Advisory Office** of the Centre in each of the 26 regions. In the Rural Advisory Offices there are advisors in the different fields of production and in the regional offices there is always an advisor specialised in plant production, often one in animal husbandry, economics, crop farming, book-keeping, veterinary medicine, rural development and technical matters respectively, as well as other fields. Each crop advisor has on average 20 clients who pay for services in crop and fertiliser planning, advice on plant protection via field visits and economic evaluation of production. The advisor arranges field days which are also visited by farmers other than the clients. (Henriksson, 2007: 41)

The main objectives of the Latvian Rural Advisory and Training Centre are:

- facilitation of rural development, increase of professional and economic knowledge of rural entrepreneurs;
- organisation of consulting services and training in all Latvia's districts;
- increase of competitiveness of rural inhabitants in the European Union;
- organise post-graduate education of the staff of institutions reporting to the Ministry of Agriculture (Latvijas Lauku..., 2008).

It is a problem to find sufficiently high-qualified agricultural specialists who can spread the required knowledge to farmers regionally. The farmers have a lack of knowledge about national legislation in environmental protection and as a result, regulations are sometimes ignored. There is a need for support to train animal breeding specialists abroad, due to a lack of provision for fast and highly qualified science development in the agricultural sector in Latvia. It is necessary to prepare information materials for farmers about new legislation and other requirements. (Henriksson, 2007: 44)

Some of the commercial companies are doing their own advisory work. There is good cooperation between LRATC and commercial companies in connection with promoting the most profitable and environmentally friendly solutions in agriculture. There are many educational seminars during winter and practical field days during the growing season as a result of this cooperation. LRATC crop advisors take part in the activities of processing companies, for example seminars for farmers organised by the potato starch company Aloja Agro.

The dairy and meat industry does not have any advisory organisation but LRATC cooperates with the Latvian Beef Cattle Breeding Association. (Henriksson, 2007: 45)

The most relevant research institutions are:

- *State Stende Cereal Breeding Institute* - Plant Breeding, Crop Management, Seed Breeding, Mechanisation, Laboratory, Fundamental Library, Sales Management.
- *Agrochemical Research Centre* - soil analyses.
- *Latvia University of Agriculture (LUA)* – Faculty of Agriculture; Faculty of Economics; Faculty of Technology; Faculty of Veterinary Medicine; Faculty of Rural Engineering; Faculty of Food Technologies; Faculty of Forestry; Faculty of Social Sciences; Faculty of Information Technologies.
- Under Latvia University of Agriculture there are six institutions: *LUA Skriveri Scientific Centre, LUA Biotechnology and Veterinary Medicine Research Institute "Sigra", LUA Agricultural Machinery Research Centre "Ulbroka", LUA Scientific Institute of Water Management and Land*, *LUA Research and Study Farm "Vecauce", LUA Research and Study Farm "Pēterlauki"*.
- The independent private advisory company *Scientific Agricultural Centre of Latgale* - field trials and other scientific research on crops.

- The private company *State Priekuli Plant Breeding Station*. The Station has produced 101 new varieties of 31 different agricultural crops. Almost all main varieties cultivated in Latvia have been bred in Priekuli. The Station also carries out seed multiplication and other research in crop cultivation methods, participates in education activities and provide advisory services. (Henriksson, 2007: 45-46)

The main inspectorates and institutions, supervising agricultural producers:

- *The State Environment Service* controls through laws and regulations the procurement and use of nature resources, environment protection, pollutant emissions to the environment, management of hazardous and household waste, performance of chemical products and other activities.
- *The State Plant Protection Service* performs official control and surveillance in the field of free movement of plant protection products, fertilisers, plants and plant products, plant varieties, seed and planting material. Also involved in cross-compliance monitoring.
- *The Rural Support Service* is a state administration institution. It is responsible for implementation of a unified state and European Union support policy in the sector of agriculture, forestry, fisheries and rural development; it supervises compliance of the sector with the laws and regulations and fulfils other functions connected with agriculture and implementation of rural support policy including the cross-compliance control system.
- *The Food and Veterinary Service* is a state administrative institution supervised by the Ministry of Agriculture. It ensures unified state surveillance and control over food circulation and the sector of veterinary medicine. Functions of the Service pursuant to the effective legislation and regulations include: food circulation control, veterinary surveillance and control, border sanitary control, laboratory investigations. Also involved in cross-compliance control.
- *The State Breeding Inspection* is a civil institution subject to the Ministry of Agriculture and it has territorial structural units with breeding and milk quota inspectors. The Inspection polices compliance with the rules and regulations of Breeding Law and European Union Legislation.
- *Local Government.* The Latvian Association of Local and Regional Governments is an association unifying local and regional governments of the Republic of Latvia on a voluntary basis. The Association has the authority to represent local and regional governments in the negotiations with the Cabinet of Ministers as the Association associates 528 members. (Henriksson, 2007: 47-48)

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10 LATVIA'S RURAL AREAS AFTER 2013: PLACE THAT PROVIDES OPPORTUNITIES FOR DIVERSE ECONOMICAL ACTIVITIES BASED ON LOCAL RESOURCES (ENVIRONMENT, INFRASTRUCTURE AND KNOWLEDGE)

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Agriculture is one of the most important economic sectors. It is the biggest user of agricultural land as well as the factor determining the quality of the rural landscape and environment. The development of the sector accelerates year-by-year, yet the contribution of agriculture to the gross domestic product (the GDP) is decreasing against the background of more rapidly growing value added of other sectors.

Although uncertainty has increased in external market, national economy in Latvia shows steady growth. The GDP in last quarter of 2011 exceeded that of 2010 by 5,7 % and total GDP of 2011 increased by 5,5 %. Economic growth rates have been one of the fastest in EU last year.

Central Statistical Office's data shows that the total GDP of 2011 in actual prices was 14 161 million Lats which is 11,2 % or 1 422 Lats more than in previous year. A sharp rise has been observed in the field of accommodation and catering services (I)+24 % as well as transport and storage sector (H)+20 %. It should be noted that there were no sectors of the economy experiencing decrease in 2011compared to 2010.

Value added to agriculture, forestry and fish farming (NACE 2.red.A, actual prices) has increased by 11,6% compared to previous year. The value of agriculture keeps stable rate in the total GDP- every year the same 1,6 %.

Table 10.1 GDP indices 2009-2011

GDP indices, year 2009-2011	2009		2010		2011	
	thous. Lats	%	thous. Lats	%	thous. Lats	%
GDP	13 070 448	…	12 738 735	…	14 161 028	…
Total value added	11 794 764	100%	11 421 287	100%	12 679 679	100%
Crop farming and cattle-breeding, hunting and other subsidiary activities (A01)	171 245	1,5%	178 167	1,6%	198 637	1,6%
Forestry and forest exploitation (A02)	248 093	2,1%	307 516	2,7%	345 544	2,7%
Fish farming (A03)	25 146	0,2%	24 373	0,2%	24 792	0,2%
Food and beverage industry (C10-11)	370 329	3,1%	381 825	3,3%	415 828	3,3%

Source: www.csb.gov.lv

In the fourth quarter of 2011 the working population aged 15-74 grew by 3,7 %, compared to that of 2010 and reached number of 986,6 thousand. Overall, the number of employed in 2011 has grown by 3,1 % compared to 2010 and the number of job seekers among economically active citizens has decreased by 3,3 % and reached 15,4 %. The highest unemployment rate in March of 2012 was recorded in Latgale region (20,4 %) whilst the lowest

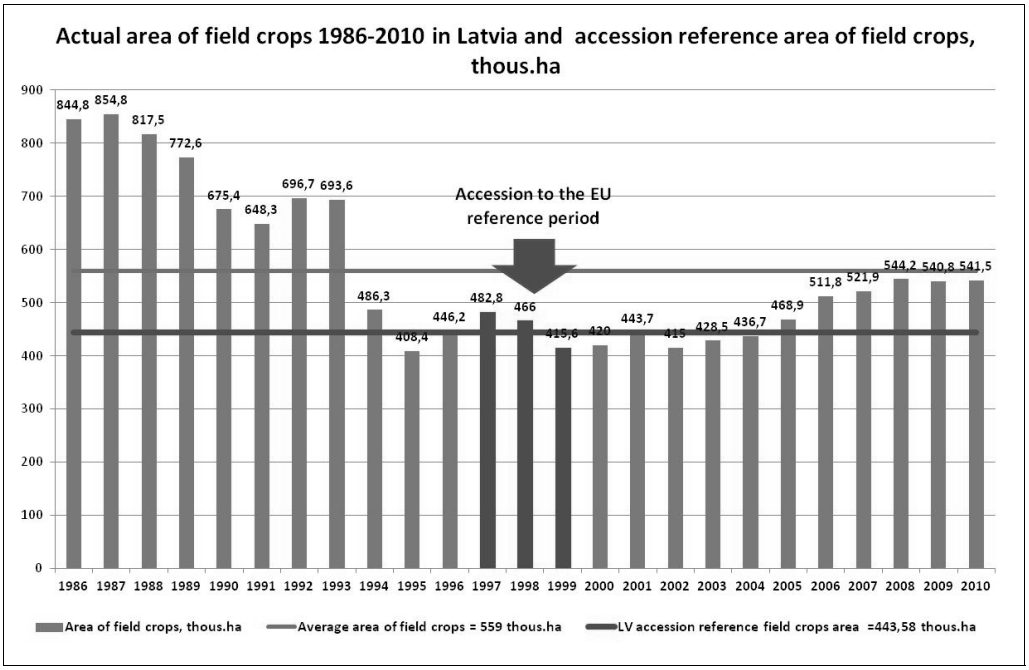
rate was recorded in Riga (7,8 %). There has been observed a stable growth in number of vacancies since the middle of 2010. 2987 vacancies had been recorded till the end of March of 2012 which is 16,9 % more than it was recorded in March, 2011.

Average salary is gradually increasing since the last decade of 2010. In 2011 the average monthly gross salary increased by 4,4 % or 19 Lats reaching 464 Lats. Growth rates for public sector reached 4,7 % which was also almost the same for private sector- 4,6 %. After overcoming the crisis the most rapid growth in wages was recorded in the field of agriculture and forestry as well as in electricity sector, gas and heating industry. One of the highest salary increases in 2011 was observed both in the sector of agriculture and forestry as well in the field of real estate and related services. However, the lowest increase in salaries was recorded in transport and storage industry.

In 2011 there were 91,8 thousand people employed in agriculture, forestry and hunting sector (NACE 2.red. A), which is 11 % more than in the previous year. The number of employed in crop production, livestock and hunting sector (A01) has increased by 17 % or 9,9 thousand people (70 thous. people) making up 7,2 % of the whole number of the working population in Latvia. 45,2 thousand of all employed people in crop production, livestock and hunting sector in 2011 were men and 24,8 thousand were women.

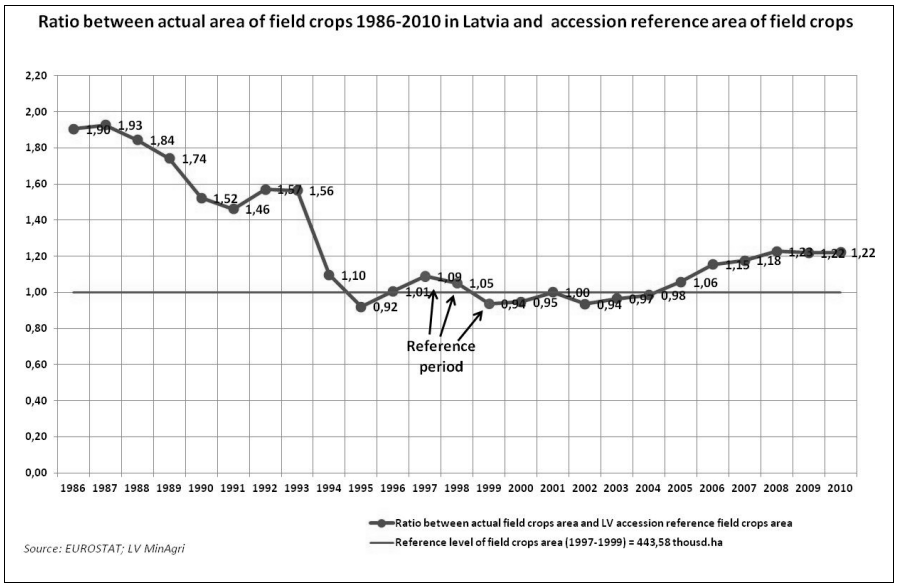
Current levels of the CAP direct payments reflect historical production levels and historical levels of support received under price and production aid schemes from 70s, 80s and 90s of the last century. Therefore, Member States which had developed intensive agriculture in the past in heavily subsidized sectors have higher levels of direct payments for supporting their farmers, while farmers in Latvia receive modest levels of direct payments, as envelope of direct payments was calculated on the basis of production figures from the time Latvia was in transition from planned economy to market economy.

Figure 10.1 Actual area of field crops 1986-2010 in Latvia



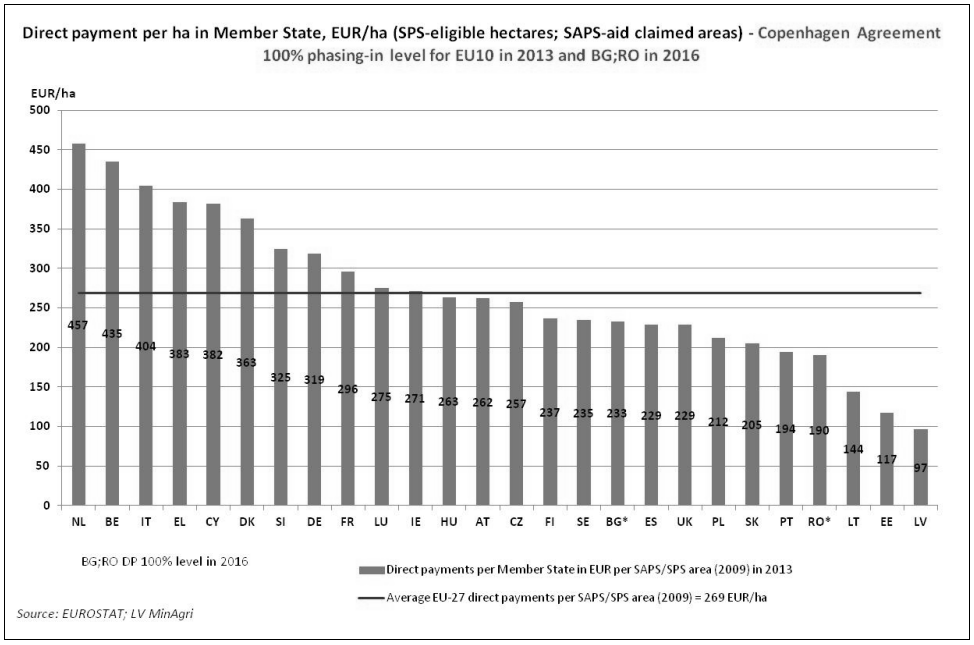
Source: www.zm.gov.lv

Figure 10.2 Ratio between actual of field crops 1986-2010 in Latvia



As a result Latvia is still receiving the lowest level of payments per ha between all Member States; this situation is unfair and creates distorting competition. The differences between direct payment levels (per ha) show that some Member States with high direct payment levels receive direct payments even about 5 times bigger than those with low direct payment levels (Latvia)!

Figure 10.3 Direct payment per ha in Member State, EUR/ha



Source: www.zm.gov.lv

At the same time, if we are comparing expenses in agricultural production between Member States statistical data (economic accounts for agriculture), it can be seen that expenses in agricultural production (energy, fertilisers, machinery, etc.) in Latvia are even higher than EU27 average.

Why is it necessary to REVIEW CRITERIA AND ENVELOPES OF Direct payments?

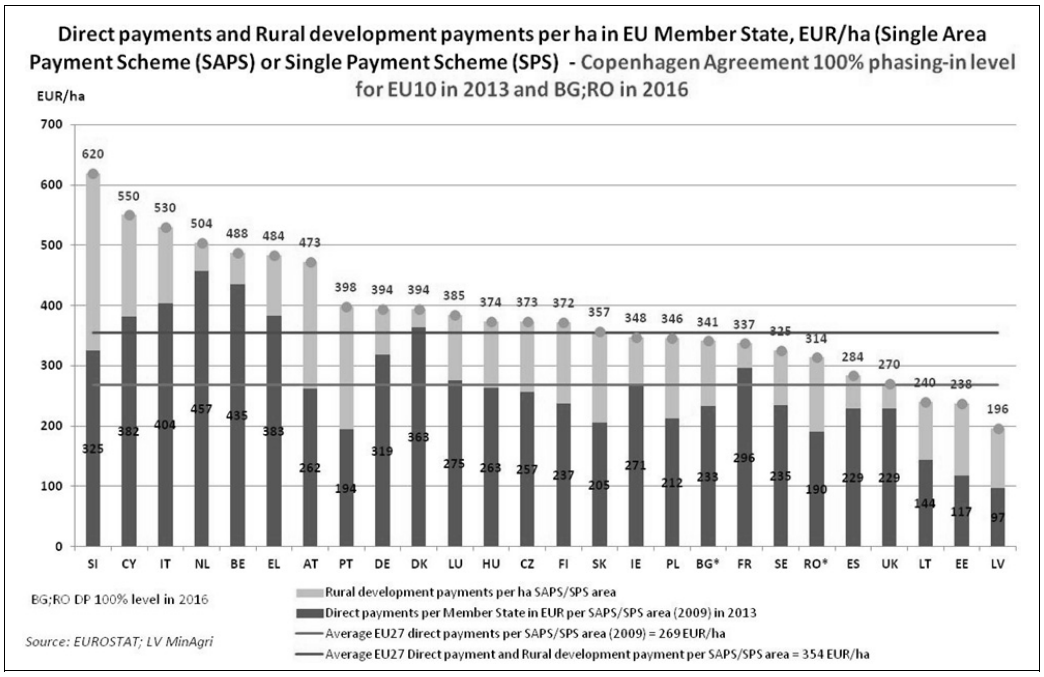
Within CAP reform of 2003, objectives of direct payments were changed: the objectives of the decoupled direct payments are to ensure income stability, to achieve improved competitiveness, better market orientation and better compliance with EU standards but during this reform direct payment levels were not linked to respective objectives. Therefore, Latvia considers that there is crucial need for improvement of direct payments system, moving away from existing historical criteria in distribution of direct payment envelopes and establishing new objective criteria for calculation of direct payments that reflect the real situation. Fair distribution of the financial envelopes between the Member States should be determined at EU level.

New criteria shall be clearly linked with CAP objectives and direct payments. Food security could be achieved by maintenance of production capacity while competitiveness could be achieved ensuring certain security of income levels. Accordingly, objective criteria of direct payments shall reflect the costs of basic maintenance of agricultural land and certain income security linked to incomes of overall economy for example GDP per capita; utilised agricultural area (UAA); costs of maintenance of agricultural land (labour costs in agriculture, costs of use of agricultural machinery, depreciation, fuel costs).

Some Member States are arguing that "new" Member States comparing to the "old" Member States receive approximately the same amount of Rural Development financing as their direct payments envelope – 50%/50% while the "old" Member States receive far less in Rural Development financing than their direct payments envelope - 20%/80%. Latvia considers that it

is not justifiable to sum together Rural development financing and direct payments envelopes as there are absolutely diverse goals for financing of the Rural development policy and for direct support. Still, even if we sum up each Member State's annual total Rural Development financing and Direct Payments envelope and divide it to utilized agricultural area, Latvia (similar situation for the other "new" Member States) still receives the lowest amount of EU financing per hectare.

Figure 10.4 Direct payment and Rural development payments per ha in EU Member State

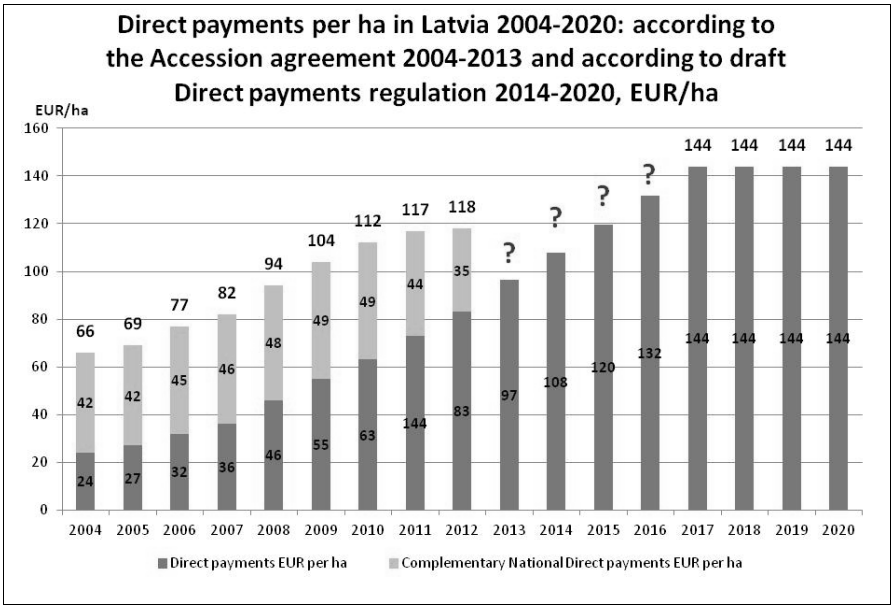


EU financing that Latvia receives from EARDF projects is invested also in the production modernization by purchasing equipment from other EU Member States as Latvia is not producing such machinery and equipment. Therefore, with the EU financial resources available for Latvia, the economy of other EU Member States is encouraged as well.

Unfortunately, the Commission's proposal for the redistribution and adjustment of direct payments of 12 October 2011 will not ensure equitable and fair distribution of the direct payments for all EU Member States. Therefore, this proposal is not acceptable to Latvia as it will not change the system of direct payments since it means that after 2013 the EU support will still be distributed according to historical and out-dated criteria that do not characterize the actual situation and thus there will still be Member States that receive inadequately low support.

In order to avoid distortions of competition between Member States and farmers and ensure equitable and objective distribution of the direct payments for all farmers of the EU, Latvia requests to introduce minimum (80% of EU average) and maximum (120% of the EU average) levels of direct payments support that a Member State might receive. According to calculations, only 6 Member States (LV; LT; EE; RO; SK; PT) in 2017 will still be below 80% of the EU average level. In order to fill the gap between European Commission's proposal for direct payments 2014-2020 and 80% of the EU27 average, the necessary additional financial amount for the whole period 2014-2020 for all 6 Member States is ~3,586 billion EUR or only 1,2% of the total EU27 2014-2020 envelope.

Figure 10.5



Source: www.zm.gov.lv

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